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ABSTRACT

An intensive 2-week recreation management institute plan, with proceedings of 20 sessions, is presented in this 1967 document. The primary goal of the institute was to provide systematic methods for (1) upgrading and improving the recreation knowledge of middle management recreation personnel and (2) developing or refining their recreation knowledge and management skills. Among the discussions, it is noted that the natural resources base for recreation is in a period of tremendous change resulting in a need for education in recreation. Due to urbanization, knowledge of how to use the country properly is disappearing from the American mind, and this directly affects the aims and performance in public service. In addition, there tends to be little communication with the majority of people about problems related to recreation programs, and it is therefore recommended that initiative be taken by those in the field of recreation resources to work with school systems in devloping conservation programs and to create an awareness of the importance of the American landscape as a basis for a worthwhile American society. [Not available in hard copy due to marginal legibility of original document.] (AN)

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COLLEGE STATION, TEXAS

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**U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION**

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PREFACE

The booming demand for outdoor recreation today is becoming increasingly obvious, especially to recreation administrators and managers of governmental agencies with recreation responsibilities. A growing number of states depend on tourism to help broaden the economic base. More and more private interests are venturing into recreation businesses. Recreation consultants are increasing in number. Colleges and universities are broadening their curricula or establishing new departments to produce recreation administrators and managers.

State and Federal agencies, in particular, have sharply expanded recreation programs under the impetus of the Land and Water Conservation Fund Act. A substantial number of new positions in recreation administration and technical assistance have been created. Attempts to cope with increasingly complex recreation problems have led to recognition of the need for additional recreation training.

Response to the demonstrated need stimulated the National Park Service and the Department of Recreation and Parks at Texas A&M University to formulate and conduct an intensive two-week Recreation Management Institute. The National Park Service provided financial assistance to do the necessary planning. The Institute covered 17 major areas of recreation concern to provide participants with a broadened understanding of the interrelationships of resource management and recreation. Enrollment in this first Institute was purposely limited so that an intensive workshop study atmosphere could be maintained, with maximum opportunity to exchange ideas with highly qualified instructors and with other participants.

The primary goal of the Institute is to provide systematic methods for upgrading and improving the recreation knowledge of middle management recreation personnel, and developing or refining their recreation knowledge, management skills, and for broadening the understanding of related considerations.

Today's complex recreation problems no longer permit a traditional stratified approach. The contents of the topic areas are germane to all levels of governmental agencies, private enterprises and quasi-public interests. Only through understanding, appreciation and respect of each agency's role in recreation, can managers and administrators provide optimum experiences for recreationists and utilize our nation's resources.

We wish to extend our thanks to the authors whose manuscripts appear in this publication, and to express our most sincere appreciation to the agencies, allied A&M University departments, private concerns, and guest speakers who contributed to the success of this first Recreation Management Institute. The contributors include: National Park Service, Bureau of Outdoor Recreation, U.S. Forest Service, U.S. Army Corps of Engineers, Texas Parks and Wildlife Department, Trinity River Authority, California State Parks and Recreation Department, Colorado State University, Houston Sports Association, Houston Parks and Recreation Department, Humble Oil Company, Heritage Garden Museum, and Texas A&M University Departments of Range Science, Architecture, Agricultural Information, and the Texas Agricultural Extension Service.

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PHILOSOPHY OF RECREATION SERVICE

by

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Since those early days in Boston when the idea of building a playground in a park was suggested so that city kids might enjoy the simple recreation pleasure of playing in a park, we have expanded and changed our concepts as to the role recreation should play in this country.

Increasing population, increasing leisure, and increasing wealth give us reason to examine the paraphrased words of Aristotle as written by Sebastian DeGrzia, when in his book "Time Work and Leisure" he wrote "So long as they were at work, therefore, their power was preserved but when they had attained leisure they fell, for of the arts of leisure they knew nothing, and had never engaged in any employment higher than work."

This Recreation Management Institute will explore ways and means to more adequately utilize our resources, so that we might constructively use our leisure time. We cannot give historians an opportunity to write: "They knew nothing of the art of leisure." To better understand some of the changes that might affect recreation services as we look forward to the challenges and opportunities of the year 2000, a quick review of the history of the parks and recreation movement in this country might serve as a foundation for subsequent discussions.

Early in this country, we established in the emerging cities a square or plaza in which soldiers could be trained to protect the cities. These areas later became known as "commons" and subsequently developed into the "city park" around which the city grew. As the city grew, there were those who felt the need for additional open space, so the concept of parks within the city environment developed. Most of the early parks utilized concepts obtained from England and the pastoral scene predominated the city park and horticultural excellence was the design criteria. The parks were not to be used; they were to be viewed.

As the country grew and developed, there were those who felt that the city square or commons should be used and the idea of children's playgrounds came into being. As the population moved west, a few individuals sensed that some of the natural resources of this country, some of the great natural wonders and scenic areas, should be preserved for future generations to enjoy. This idea developed the concept of the National Park Service; a contribution that is stimulating the entire world to preserve its unique and outstanding areas of natural and historical significance.

I was surprised when I was in Australia doing some work for the Australian Government at their concept of national parks. They have national parks in Australia which vary in size from a half acre to thousands of square miles. Each park is operated by an independent authority or commission, with each operating that particular national park on the basis of their background and experience. The concept of people use is foreign to them. They are more concerned with resource use. If a commission for a park is made up of grazers, then the concept is, "how many sheep can be grazed in that particular national park." If they are mining engineers, the park is exploited for its mineral resources.

The concept of our national park system is, I believe, two-fold: preservation of the natural wonders and the scenic areas and the historic sites of this country; and preserving these areas for people use. "People use" is the distinction we have made that other countries are now beginning to understand. National parks are set aside for people use, not just for visual or aesthetic enjoyment.

The idea of building a playground in the Boston Commons for children was the beginning of the concept that parks are for people. The playground became a function of the park, and at that point the conflict between the horticulturist and the recreationist developed. The conflict raged in this country for about twenty-five years; should parks be for people or should they be something to look at and enjoy for their horticultural and aesthetic values?

I am sure that many of you in this room can recall the meetings of the American Institute of Park Executives and the National Recreation Association during this period. Not a single meeting took place that the subject of whether parks should be used by people, or whether they should just be viewed, was not heatedly debated. Those of the old school thought in terms of horticultural excellence and contended that parks should not be for people. Oh, they did not say it exactly that way, but that was exactly how they felt.

In the year 1930, and for the next ten years, the concept of recreation emerged. During this period there was introduced into the parks, not only playgrounds for kids, but the concept of providing recreation for adults in the form of football, baseball and soccer fields and community buildings. These activities increased the conflict between the horticulturalists and the emerging active recreationists. The conflict raged for almost 50 years. When we look back, it is hard to understand how during this period we concluded that parks were not for people.

Ultimately, the concept of parks for people emerged. It seems to me that between 1950 and 1955 parks and recreation leaders began to agree that parks were for people. The National Park Service had thought in these terms, but in this conflict, particularly as it revolved around the city parks, the National Park Service did not take part in the debate nor did they press their basic concept that in setting aside the great natural wonders of this country, they were preserving them for people to use and enjoy. They did not provide the positive leadership that they have given in recent years, because, I assume, they felt that national interests were different than local interests, and that the Federal Government should not be involved in the controversies of local government.

We are now on another plateau and are looking ahead, trying to decide what our responsibility is going to be in the next 50 years with more and more leisure time. I am sure that each of you in this room is beginning to understand that parks for people has a deeper connotation than just the supervised playgrounds and the horticultural excellence of a piece of property. We now have the broad responsibility of taking care of the leisure time of people.

We have seen in history that leisure time unless it is directed, can be destructive, and in most of the great countries of the world, leisure time was destructive and caused the downfall of great nations. Unless we in this country master the art of leisure, put that time to work constructively, we may actually be witnessing now, the beginning of the downfall of this great country of ours. I am not emotional about this. I am saying to you that our job in the next 25 years has great significance and, unless we understand the depth and meaning of leisure time, we may find ourselves in very serious trouble.

I do not know of any other group that is better qualified to accept this responsibility, I would like to remind you that the hotel industry in this country did not understand its responsibility to the traveling public, so a whole new industry developed -- the motel industry. A whole new group of people had to go through the process of understanding how to take care of the traveling public. They made mistakes that they should not have made because they did not have the experience of the hotel industry.

Another example is the transportation industry. Railroads became complacent; they had it made. A new industry moved in -- the airplane industry. It is moving people and freight back and forth across this country in increasing volumes. It may be that in the next fifteen or twenty years that passenger trains will disappear; in less than a hundred years, an industry wiped out and replaced by a new, vigorous industry not related to the old one.

Is this going to be the fate of parks and recreation? Are we going to recognize our responsibilities? Or, are we going to fail? Are we complacent? Are we going to let someone else do the job that we should do because of our background, understanding and experience? I believe that institutes of this nature are essential to eliminate complacency and to develop an understanding of the tremendous responsibility you, as professionals, hold. I hope that this institute will explore in depth the part we, as professionals, hold in solving the question of how to effectively and constructively use our leisure time.

Let us look at some of the areas in which, I think, great change must take place in the next 25 years if we are to meet our responsibilities. Unless we change, we may find ourselves replaced by others who are more vigorous and far-sighted and recognize the problems of leisure time more clearly than we do.

Let us first look at the question of coordinated environmental planning. I think most of you are aware of the fact that up to the present time in this country, we have done specific planning without regard to the total environment. Let me illustrate with a few examples from my own state. In Southern California, where we have had problems with our intermittent streams, where fires have burned off the brush on hillsides, causing severe erosion and floods, we have solved the flood problem by building flood control dams in all streams. However, this has caused a serious sand depletion problem on the beaches of Southern California.

The engineers did not recognize the total problem. What has happened? Because of the excellent single-purpose planning job, severe erosion and flood problems in Southern California were solved. But sand does not get down to the Southern California beaches. Sand moves along our Pacific Coast from north to south and so, without replenishing the sand, depletion takes place and the beaches in Southern California were disappearing and the erosion of the bluffs adjacent to the beaches became so severe that millions of dollars in development was annually falling into the ocean.

To solve the problem, sand is pumped out of a deep ravine and by barge transported up the coast 100 miles, dumped, and allowed to move down the coast, thus, eliminating the sand depletion. The cost is $10 million annually. So, now the engineers are designing dams in Northern California that will intermittently release the silt from in back of the dam into the stream so that we will not have the same problem on the Northern California beaches that we had on the Southern California beaches. This is environmental planning.

As another example, we have what we think is a pretty exciting water transfer program from Northern California to Southern California. It is controversial. The people in the North feel that they should not be transporting water to the South; the people in the South feel that they have got to have the water to exist.

Part of the development of this program in the early days was the Delta Mendosa Canal which carries water from the North southerly to the San Joaquin Valley. The Delta Mondosa Canal was designed by engineers to carry a certain volume of water every second to Southern California -- single purpose planning! What happened? They designed the section of the Delta Mendosa Canal so perfectly that the amount of sunlight coming through the water was exactly right to provide perfect incubation of the Asian clam. The Asian clam reproduced so rapidly in the Delta Mondosa Canal that in ten years the shell deposits in the Canal had built up 18 inches. The shell deposit reduced the carrying capacity of the Canal. Now, $10 to $15 million must be spent to remove the shell deposits of the Asian clam.

Today the new West Side Channel is being environmentally planned. Engineers, landscape architects, recreational planners, fish and wildlife management people, biologists, zoologists, all are involved in the design of the new West Side Canal to take water from Northern California to Southern California.

As another example, I am sure, all of you enjoy the marvelous strawberries that are produced today. Some of you may not know how these strawberries were developed. The present commercial strawberry crop is worth $90 million a year in California. That crop is dependent on the wild strawberry that grows in very limited areas on the Pacific Coast in Northern California. The cross is a triple cross: the eastern strawberry with the European strawberry; and that cross-crossed with the California wild strawberry produces the commercial strawberry we enjoy today. There is an enzyme in the wild California strawberry that is very fugitive and the pollen can only be taken from the wild strawberry.

The highway engineers, not understanding this, had designed a highway through the major area where this wild strawberry grows. The plant was not significant. It did not look important. The freeway was being designed to carry people and things up and down the coast of California and the small patch of wild strawberries did not seem important to the needs of transportation. This was single purpose planning until a botanist pointed out the importance of the wild strawberry which changed a single purpose planning effort to environmental planning.

Each one of you in this room can think of examples of single purpose planning that has taken place in this country over the last 25 years. We cannot continue single purpose planning. We must, from this time on, direct all of our energies to environmental planning. We must do environmental planning in the development of parks. We cannot plan parks with a landscape architect as we did in the past. We must use a team approach using the services of sociologists, economists, architectural engineers, city planners, and recreation planners. We must broaden our concepts of what a park is and what its recreational purposes are to be. We must think, not just of parks for people, but of people's recreational motivation and the effects the park is to have on people.

Secondly, we have got to introduce into our departments the concept of research. In this country today, we are not doing enough research on the question of recreation. In my mind, we must give priority to funding basic research in recreation. No longer can we develop parks and recreation programs by the green thumb technique. We have done this for too many years. The time has come when we must look ahead, using research data to solve recreation problems. We must have more information and an understanding of the psychology of the recreation user. Why does he come to a park? What does he hope to get out of his visit to the park? What are the values to society of open spaces and beauty? How should parks be developed in order to satisfy the needs and desires of people? What are the economics of recreation? We talk about these subjects but we lack facts to support our beliefs. We have not done the necessary research. There are people in this country who claim that people can adjust to their environment and be happy and that parks and beauty are really not necessary; that money and effort expended in this direction is wasted. Research would provide the facts to better support or refute such arguments.

You and I believe without any question that man gets inspiration and his whole being is improved by beauty and open space and the opportunity to go into the out-of-doors. We believe that parks are necessary, but we do not have facts to support these beliefs. We have not done the necessary research to prove our contentions. Maybe through research, we may find that some of our ideas and plans are not right and we should be doing something else as we plan today for the year 2000. We must know that we are proceeding in the right direction and we must have sufficient basic research data to support our planning efforts.

Another area in which there is going to be change is in the management of our park and recreation areas. Gradually we have emerged from the spoils system of appointments to high professional standards for park and recreation administrators. There are still too many park and recreation departments that are administered by political appointees who are not qualified to creatively and professionally carry out the responsibilities of their highly specialized governmental service. We must insist in the years ahead that parks and recreation areas be administered by qualified professionals who are well-trained, skilled managers with imagination, who are aggressive and creative, and who have a deep sense of personal integrity. No longer can we continue to operate our parks, whether they are in the city or at the federal level in an unimaginative manner. Creative thinking develops only if the professional manager sets the standards and the tone for the department and provides the inspiration for creative thinking.

I am very pleased to see throughout the country that we are increasing at the college and university levels the opportunity for young people to secure advance degrees in park and recreation management. Now that the universities are providing us with well-trained young men and women, we have the responsibility of developing a good in-service training program and providing job opportunities and advancement. The National Park Service has an excellent in-service training program. It must be expanded to the state and local levels.

Scientific resource management is another area to which we must give greater attention. I was amazed when I came to my present position to discover that the parks and recreation department with more than 800,000 acres of outstanding examples of California's varied landscape had only one man responsible for resource management. The National Park Service is now doing an effective job in the field of resource management, but here again we lack the research required to make long-range projections and judgment decisions.

The field of resource management is in its infancy. I doubt if we really understand how to use our resources wisely in the total public interest.

We have the capability, the personnel and the money if we will seriously consider the problem. We cannot just hope that our decisions will work. We cannot develop our parks and open them to the public for use without understanding the complicated problems that will develop when people begin to use the resources. How do we preserve the natural values of an area with people use? Can we with good management and planning do this? Many local, state and federal parks are being worn out simply because we have not had a sound scientific professional program. We have the ability and the technology to manage our resources effectively if we will recognize that this is a major responsibility of park management.

Lastly, it seems to me, that we need to recognize that we have a responsibility to environmental education. We have assumed, I think, that education is the responsibility of our universities and colleges and high schools and elementary school systems. This is not an area in which we should be involved. Yet, I note that people coming into our city, county, state, regional, and national parks and forests do not really understand the areas. They do not know and do not understand ecology. They are like the man and his wife who I saw at Calaveras Big Trees State Park. He and his wife drove up, parked in the parking lot, walked over to the north grove, stood beside the giant Sequoia tree. She took his picture; he took her picture; and he said, "Let's go, Ma, we have got 20 more state parks to visit in the next two weeks."

We have too many people like this coming into our areas, people who do not recognize or understand the true values found in our parks and forests. If we are going to shift from single purpose planning to environmental planning, people must understand ecology because environmental planning depends upon an understanding of ecology.

In the next 25 years, we must emphasize environmental education. Local park systems, as well as the state and national park systems, must make this a vital and major function of their operation. The National Park Service is doing a very exciting and interesting job in interpreting the values within the National Park System. The National Forest Service is beginning to approach this problem, but at the state level and especially the local level, we are not doing the job effectively.

In the last 25 years, at least in California, we have seen environmental education or the more restrictive nature or conservation education eliminated from the curriculum in many elementary and high school systems in favor of chemistry, mathematics and the physical sciences. A whole generation of urban dwellers have been educated without a clear understanding of ecology. If they do not understand ecology, they cannot support environmental planning. And without environmental planning, we are going to find our resources, natural, human and physical, wasted. In the next 25 years, we must devote a great deal more attention to environmental education.

I have talked to a number of our city and county park departments about their responsibility to stimulate and implement conservation or environmental education as a major function of the park and recreation departments. The answer is always the same: No money! Yet these same department continue to teach crafts and folk dancing even though their cities are dieing of congestion.

Most of the urban people who come into our parks today do not have the background education to understand and appreciate the true value to be found within a park, so they are destroying the resources that we are trying to protect for their enjoyment and pleasure. I feel very strongly that environmental education must be a part of our changing responsibilities in the field of parks and recreation.

Some 80 million Americans never traveled beyond their home city in 1964. Fifty percent of the people in the United States have never traveled more than 200 miles away from their home. This, I think, is due in part to the fact that they feel secure staying in their backyards. They are afraid of the out-of-doors because they do not understand nature. I believe that once people understand ecology, they will find pleasure and enjoyment in the out-of-doors and will feel freer to move out of their secure urban surroundings.

Our parks are great outdoor classrooms which we should be using more effectively. It is not just the school systems responsibility. The park and recreation profession must also accept the responsibility for environmental education, using our outdoor classrooms to their fullest capacity and capability.

In summary it is my opinion that our responsibility in order to meet the challenges of the next 25 years is to:

1. Stimulate and encourage environmental planning at all levels of government.
2. Coordinate and integrate planning at all levels of government.
3. Insist upon qualified and technically competent people to manage our parks and recreation departments.
4. Use parks and forests as outdoor classrooms to teach environmental education.
5. Encourage recreational research programs.
6. Place greater emphasis on resource management and on environmental education.

If we will accept these added or expanded responsibilities in addition to the normal activities that we have accepted in the past 25 years, we can do the job that is going to be required of us in the next 25 years.

THE NATURAL RESOURCE BASE FOR RECREATION

by

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Looking over the background of our panel today, I came up with an interesting observation. There is a total of 79 years of professional involvement in Parks and Recreation in this little group. I mentioned this to you, not to reassure you of our competence, but to give you pause for thought. How can it be in a group totaling 79 years of concerned involvement in our field, that there can be so few answers given to so many questions? I believe the answer to this is very simple. We are in a period of tremendous change. Many new things are happening and we don't have the answers. Hopefully, we do have some considered and worthwhile opinions.

Our charge today is to discuss the natural resource base for recreation. My first reaction when Les Reid gave us this assignment was that it was impossible. After concentrating on it for a couple of weeks and developing correspondence with the panel, I came up with a second conclusion. It is still impossible but certainly worth a try.

We decided to divide the assignment into three major parts. We hope to cover these somewhat formally and then to have a discussion which will be lively and to the point. I will attempt to treat the general subject: What is this resource? What is its scope? How much is included in this natural resource base for recreation?

Lon will follow with a discussion of the opportunities this resource provides. Bob will then follow with a discussion of the problems which relate to management of this resource for recreation. Thus, we hope to build up to a question and argument period which will be productive for all concerned.

Our panel met yesterday for a little while to make sure we weren't duplicating ourselves. We came up with some rather interesting conclusions. First, we found that we were all concerned about our responsibilities in public service which are much broader than our actual "legal" jobs. We came up with a profound personal conviction that our responsibilities in public service are much, much greater than what we are hired to do. This job of recreation encompasses a field of thought which goes out of our parks and into the community and into the state. It includes all efforts that relate to the promotion of better use of leisure time. Second, we are especially concerned with what Bill Mott said about better communications; getting to the right people; getting to the public, and especially getting to the public through environmental education and conservation education.

We have a common basis of concern for those fundamental areas of professional activity. And then, each of us has our "druthers". We have our pet theories about which we feel very strongly. We will express some of these to you. We may not be in complete agreement with each other, but I think we will all have some ideas to agree with or to attack.

Each of us is hopeful that you will use the paper in front of you and jot down questions, comments, or whatever else you wish to talk about after we are through. The rules of the road are simple: We will have our brief presentations without any discussions. Then we will have a coffee break. Then we'll come back for a knock-down-drag-out informal discussion. And along the way, we will try to raise questions in the hope that some answers will come out in the discussion period.

First, I should like to make some personal observations in relation to this field of recreation resources. Bill Mott has already impressed upon you the grave importance of leisure time in American society. It has been said that a young man today, about to start out in his life's work will have in his lifetime 22 more years of leisure than his great grandfather had. The implications are tremendous when you consider, as Bill Mott suggested, that the quality and the character of any civilization is based on the way in which leisure is spent. Leisure is the time you have after you get through with providing for the necessities of life. It is a time taken to develop the culture of our society. American society is a unique society. There hasn't been anything like it in the world before. In the past, leisure has been the property of the few, and generally the property of the elite and the knowledgeable. Now leisure is largely the property of the masses, which traditionally have been people that don't know how to spend it to the best advantage of their society. We have a problem that they've never had to solve before. What do we do with leisure time when it becomes the property of the great mass of our people; people who not only have leisure time, but who are affluent, and who have the physical means necessary to do many things with their leisure time?

Consider if you will: we park and recreation administrators, of all people in American society, are the most logical group to take an aggressive interest in how this leisure is spent. This gives us a challenge we can hardly ignore and I fear very few of us have worried much about it. It makes no difference, it seems to me, what our legal jobs may be. Each of us as a citizen concerned about American culture and what happens to America, should be concerned about all the things that are involved in this field of leisure activity. We must be concerned about zoning and planning. We must be concerned about programs that are carried on by private recreation enterprises as well as by public recreation agencies. This is all part of the total picture of how we solve the problem of leisure and its influence on our future as Americans. We must have a breadth of interest that encompasses roadside control, city beautification, planning and zoning, and a whole field of communications with citizens that we have hardly touched.

One of the reasons we have some of the troubles that burden us in resource management is that we divorce man from his environment when we analyze our resource problems. Man is an integral part of our resource inventory. To be sure he is a special problem. But he is still an essential part of the natural resource picture. Fundamentally man is not greatly different from any other form of wildlife in a park--in terms of carrying capacity of the land. Our problem is that he is a rather clever form of wildlife who continually tries to spoil our best plans for good management of recreation areas. But man has a carrying capacity in relationship to parks just as much as a cow has a carrying capacity on range land. The difference is that it is based upon a different kind of analysis. Ultimately, as our parks get more crowded we are going to become more concerned with carrying capacity. I am convinced that the day will come when we will use many of our parks through registration. We will write to Washington and get a little ticket that says we can go to Yellowstone in 1976 on the 20th of August; that we will enter at a certain place and stay a certain length of time. Crowding inevitably will lead to a concept of carrying capacity designed to protect our resources by carefully regulated use.

We're lucky in this part of the country. We really haven't felt the impact of people here. One of my favorite statistics relates to a Metropolitan Park district I once directed in the East. The district was hardly more than 30 miles square yet there were more people in it than in the whole state of Wyoming; or the whole state of Colorado except for the Denver area. This is a striking observation when you consider that this wasn't a particularly large urban area. But it is in the industrial heartland of America, in the midst of a creeping megatropolis where most of the people of America are congregating. They represent an overwhelming problem to the park administrator.

One characteristic of man we need always to keep in mind is that he has a capacity to enjoy many different kinds of pleasure from his use of the same resource. With a little bit of guidance and a little bit of education we as park administrators can increase the quality of use and the variety of use of our areas in ways that we never thought possible. This may be illustrated by a story about Central Park. There was a family who lived near Central Park. After work each day Little Johnny and his father would go for a walk in the park. Often they walked across the park and around that Sherman Statue down in the southeast corner--a tremendous equestrian statue of General Sherman on his charger. The horse is a magnificent beast; and viewing General Sherman sitting there astride him is a proud and memorable sight indeed! Over a period of time, this evening stroll became known in the family as "walking around Sherman". Finally the day came when Dad must move to another city. As he came home that night Little Johnny said, "Let's take one last walk around Sherman." So they walked across the park and around this tremendous equestrian statue. They gazed at it fondly for a few moments and as they turned away, Little Johnny tugged on his father's arm and asked, "Daddy, who's that man riding on General Sherman?" I'm sure daddy enjoyed the statue just as much as Little Johnny did. But it illustrates a point. In this field of recreation, we are working with an endless variety of men and minds.

Lastly we must continually force ourselves to hark back to fundamentals.

Consider recreation in its fundamental sense of "re-creation" of body, mind and spirit. Concern ourselves constantly with the values that come from physical activity, education in a recreation environment, and the inspiration that comes from contact with America the Beautiful as we present it to our constituents for their enjoyment. I once had an experience that illustrates the subtle way one finds his pleasures. On Sunday afternoons I used to roam around our parks to see what people were doing. They were doing everything you can imagine. One sunny Sunday afternoon I found some 150 people enjoying a little picnic grove. Right in the middle of the lawn was a man in his easy chair. This was not one of these little collapsible chairs, but a living room chair that he brought in his car and pulled out onto the lawn. He was leaning back with his eyes closed and scores of children running in all directions around him. Curiosity was with me, so I asked him whether he was enjoying himself. He thought awhile and said, "This place is beautiful beyond any telling of it." I remember this because of the way he said it, and what he must have been thinking. He was just sitting, absorbing the landscape. The value he received that day was as great as anybody could have received that day. We have values in our parks that are obscure and hard to find, but they are very important.

Natural Resource Base Panel
Summarization by Art Wilcox

Our panel has come up with a wealth of ideas for your consideration. My attempts to summarize will be inadequate; not only because the topics have been so well expressed already, but also because I was so interested in some of the points that I forgot to make notes. Here are a few points that seem especially significant to me. Many of these have been reflected by all three panel members, working independently. This may suggest to you their significance.

Importance of local parks

It is said that fifty-three percent of the people stay close to their homes. The importance of this can hardly be over-stated. It has been expressed in many ways and perhaps most effectively in recent years through the announcements of the Bureau of Outdoor Recreation and the concern of federal legislation for parks close to people. The crisis in park development in America is closely associated with the need for parks close to people.

Importance of the automobile

It was said that the automobile in the past decade has done ninety percent of our thinking in planning. The dominant role of the automobile in determining land use, in taking and holding large segments of land for traffic movement and parking and its influence on people habits in the recreation environment is unquestioned. I would suggest that we have been too prone to accept the demands and limitations set by the automobile and have given too little study to how our real recreation needs can force the automobile into adjusting itself to these needs.

Carrying the thought behind this observation a step further; perhaps we take too many things for granted and the automobile is only an indication of the tendency to use our imagination at something less than its full capacity.

Our ever-changing world

We are in a period of change in recreation as well as in other fields. A good indication of this change is seen in the Bureau of Outdoor Recreation's recent up-dating of their statistics. Driving for pleasure as the recognized number one outdoor recreation activity has almost reached the level of dogma. Suddenly we find that it has lost its position and walking for pleasure is number one. Swimming has moved up the ladder of popularity, and other activities have changed their place of relative importance.

It seems apparent that traditional activities will continue to grow. Meanwhile uses for our recreational lands we never heard of will come into being, and we will increasingly have conflicts in use, not only of space but in time.

A good example is water. How do we handle problems of fishing, water skiing, scuba diving, power boating, canoeing and sailing, all on the same area? And what new unheard of recreational pursuit will fill our lakes tomorrow?

No time to rest

The picture shown today indicates that many of our ideas of seasonal operations are disappearing. Not only are the pressures of sheer numbers of people extending traditional seasonal activities but also the composition of leisure time is changing and the opportunities to pursue outdoor recreation at all seasons of the year are increasing. As a principle of management, extending seasonal use for all kinds of recreation pursuits provides more service and make it possible to make more efficient use of our resources.

Planning and zoning

Interest in planning and zoning is rapidly becoming an important element in America's increasing concern for protecting its resources. We, of all public servants have an important stake in this rising concern for common action for community betterment. We of all public servants, are in a unique position to guide public thinking and to provide leadership in a new approach to parks and recreation; a concern for total environment; a realization that leisure and with it recreation is a part of every day life. Modern concepts of planning and zoning are among our most useful tools for bettering our environment.

Education in recreation

Several references have been made to problems of urbanization, not in terms of geography but rather in terms of the minds of people. Most Americans are now city dwellers. Soon, over eighty percent of all of the people in America will be living in a few great megatropolis regions. Increasingly these people are losing their ties to the land. While the urge to get out into the country runs strong, the knowledge of how to use the country properly is disappearing from the American mind.

We have a vested interest in this problem because the way in which people use our areas and the support they give to them directly affects our aims in public service and the efficiency of our performance.

Therefore interpretation is becoming a major function in park and recreation operations. This educational function does not stop at the park boundary. We must take the initiative to reach into the schools and work with school systems to develop conservation programs, joint school-park activities, and awareness of the importance of the American landscape as a basis for a worthwhile American society.

One of the greatest challenges of urbanization is keeping in the minds and hearts of urban people an understanding of the nature of the "web of life".

The hidden candle

Another important point relates to our own communications with others. Overwhelming concern for parks and recreation is far from universal. Unfortunately many of us are communicating adequately with only a small segment of our people. Perhaps most unfortunately, we tend to work with people who work easily with us and to simply re-sell our programs to those who are already sold; active garden clubs, wilderness society members, Isaac Walton clubs, etc. These groups are vital to our programs. They help us carry the action that sells our programs. But we need to continually probe for openings among the great mass of people who hardly know we exist and are indifferent or even unsympathetic to our problems.

The point is also made that quality doesn't come automatically. We have to fight for it every minute because we are in a competitive society and everyone else is fighting for what they are after. We are in the business of having to fight for the quality we need to provide adequate recreation services.

No simple problems

Affluence breeds an insatiable appetite for more affluence. As our society expands the multiplicity of demands grow and the pressures to have them met become more acute. The demand for space has already led to increasing multiple use of public lands. Our future as administrators is almost inevitably going to be dominated by demands for competitive uses of land. Not the least of our problems comes from the need to balance competitive recreational uses at the same time as we meet the challenge of incompatible non-recreational uses.

The old systems change

Associated with our shrinking supply of open space is the growth of new political organizations that increasingly influence traditional political organizations. These include specialized authorities dealing with water, pollution and traffic; regional planning agencies that cross political boundaries and exert tremendous pressures on existing organizations, and increasing inter-governmental cooperation as the influences of urban crowding spill across traditional boundary lines.

All of this reflects back to our political system which is still based on a horse and buggy system of boundaries and responsibilities. These new organizations are an attempt to solve the problems of the modern industrial age held down by archaic political traditions and we as representatives of a relatively new responsibility of government are in the midst of this change.

RESOURCES MANAGEMENT AND OPERATIONS-SCENIC EASEMENTS

by

Karl Gilbert

Chief, Division of Resource Management and Visitor Protection

National Park Service

In administering the Parkways, we have sought a means for acquiring additional rights. These are scenic easements. Some of us don't like these because they are very difficult to administer. Certainly, they have served a purpose in instances, but in others they have given us a lot of headaches. Early in the acquisition program a scenic easement could be purchased for practically nothing before the owner realized what he was doing. He wasn't at all concerned about selling an easement, but then development came in. He saw his right to develop entirely taken from him, and as a result in many cases, the scenic easement value escalated way beyond the fee value, and in some instances we were politely told to go to hell as far as the scenic easements were concerned.

In one case on the Natchez Trace Parkway, we had a scenic easement over some valuable timber land that, strangely enough, had been acquired by a park Ranger who had retired. The owner knew all about scenic easements because he had been involved in administering them during the time he was a Ranger. He told some of our Rangers that he was going to cut his timber. He was told that he better not, that he would be arrested if he did. So he cut the timber without anybody knowing about it, and he sold the timber and in due course was arrested. He was taken before the Commissioner and fined $50 for cutting an untold amount of timber.

Scenic easements have been a means of preserving the scene that needed to be preserved on the parkways. We were greatly interested in preserving an agricultural scene, or something similar. The people who own fee title here were actually given the right to continue to do exactly what they were doing at time of easement acquisition. In these cases, easements have proven to be very valuable. Many hardwoods areas have been preserved.

At Point Reyes, scenic easements would cost more than what they are worth. For what you are going to pay for a scenic easement, you might as well pay the additional cost and buy the fee title to the land. Then the administering problem would be reduced.

One thing that has worked very well on some of the Parkways is "buying and leasing back", only we don't call this "lease back". We call it "special use permits". We buy property from an individual and then issue him a special use permit to use the property just to maintain a given scene. It has worked very well. Actually, it has benefited the community to a great degree because under the terms of the lease, the former owner is required to do certain things and follow certain agricultural practices utilizing some of the new practices. In reality, it has brought new life to the communities.

There have been some instances where we have traded lands. In one situation on the Natchez Trace Parkway, we traded the scenic easement right on one acre of land for fee title to 13 acres of land immediately adjacent. This came about because of a commercial development that was coming in. Here, the scenic easement value had escalated to a point where the landowner wanted it very badly. The scenic value appraisal measurement is arrived at by the land values adjacent to or in the near community...it is a comparative value usually made by a professional land appraiser.

Unless you spell out every little detail, there seemingly is always a loophole that gives trouble. In most of these scenic easements, every thing is spelled out; i.e. whether or not people can graze cattle, cut timber, farm, etc., and there is usually a stipulation that the landowner can do clearing provided he doesn't cut anything over a given size.

If people donate the land for scenic easements, they receive tax deduction benefits. If you buy a guy's land under credit condemnation, then he doesn't have to pay a capital gains tax on it if he reinvests, under certain conditions. If it is a negotiated sale, then he has to pay a capital gains tax. So if you write him a letter saying you are going to condemn the land, then he will sell the land which he meant to do anyway, but he beats the capital gains tax this way.

We are allowed to pay about 5 to 10 percent above the appraised value of land we want to acquire. We cannot pay more than that, if the asking price exceeds that percentage.

We appraise, then we negotiate, then as a last resort we file a declaration of taking. The legal difference as far as the Federal government is concerned is if we file the declaration of taking, we get immediate possession. In a declaration of taking, we pay the court the amount that we think the land is worth. When the thing is finally decided, we have to pay what the court decides. In the meantime, we normally assume possession and go ahead with development.

Straight condemnation is a slow process that takes longer...as many as several years. Once the court says how much the land is worth, we are not obligated to follow up on the acquisition; we can back out. This is procedure that is not used very much any more.

The Corps of Engineers uses the declaration of taking and once it is filed, then they can go ahead and develop. The Tennessee Valley Authority does the same thing except there is no negotiation. Their appraisers come up with a set value and that is it. If the sellers don't agree, then they automatically go to condemnation.

It is the honest intention of the Federal government to pay the honest value of the land and no more. The Park Service has had occasion where the owner hired an appraiser, too, and sometimes the two appraisers Federal and private can get together. Most of the Park Service appraising is done by local contact, and then its in-service appraiser reviews the appraisals.

We are about to wrap up our contributions on resource management and operations. I want to throw out one last thing here.

There is a tremendous private segment that is concerned about profits in recreation...open space, parks, wilderness and so on. How many of these things do you belong to so that you get their literature and keep abreast of what is going on the rest of the world and what the new ideas are? List the organizations you belong to...for example, I belong to the National Recreation and Parks Association, the National Conference on State Parks, the Sierra Club (I don't always agree with them, but I do want to know what they are thinking), the Wilderness Society. I get the magazines and literature from all these organizations and more. I also belong to professional organizations such as the Society of American Foresters. There are many more organizations I belong to...but I commend these groups to you not necessarily because you are going to support their programs, or they support yours, but because it keeps you abreast of what is going on in the world.

The Wildlife Federation in particular has a series of publications, a newsletter and their weekly legislative reports, that are excellent. You know every week just what happens to the Bills in Congress that have anything to do with wetlands, wildlife refuges, forests, and parks, and things that have to do with grants-in aid.

Finally, all the money we spend on land now comes from the Land And Water Conservation Fund. This is the source of money for the Park Service, Forest Service, and Bureau of Sport Fisheries and Wildlife for purchasing refuges. We are, in effect, working on a Bureau of Outdoor Recreation program, and we are now using their forms.

This is a time of great activity and sensitivity in the field of outdoor recreation, and the public acceptance of it is our biggest responsibility. It is just getting interesting after years of being static...recreation is really starting to move.

THE HUMAN RESOURCES

by

Robert H. Sharp
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Bureau of Outdoor Recreation

Our morning session here is devoted to the "natural" rather than the "human" resource base. It is important that we all understand that this distinction cannot in reality be made. Man himself is a natural resource and our ultimate goal is conservation of this resource.

With this as my basic premise, I would first like to quote from a speech given by a representative of the timber industry, at the Flat Tops Wilderness hearings in Colorado last fall. He stated:

"For the last ten years, with ever increasing intensity, we have been bombarded with statistics, with opinions, with sociological studies of the approaching crises of our large cities. The crises occasioned by the abdication of social and civic responsibility on the part of the affluent and so-called responsible citizens, who have fled from the cities to the suburbs, taking with them their churches, their schools, and their culture.

In their desertion of civic and social responsibility, they have left behind today's crisis problems of social frustration, racial tensions, ethnic and racial ghettos, ballooning crime, moral and physical decay. The resulting guilt complex has brought on a psychotic trauma that must have relief in some direction.

Unwilling to face peril where peril is, unwilling or unable to cope with rot and blight in their cities, they go far afield to exercise the trauma that engulfs them.

Having permitted devastation to overcome their cities, they embrace a cause to stop imagined devastation elsewhere. Where is elsewhere? Today, it is the Flat Tops -- soon, the Gore Range Eagles Nest Primitive Area -- next year, the Uncompahgre Primitive Area.

To expiate their guilt complex, they rush to the cause of wilderness preservation and loudly cry, 'There shall be no shame here -- no devastation like unto our cities -- no vandals to destroy -- no mobs to desecrate -- no use but for the enlightened few.' "

Whether the author is right or wrong could be discussed at some length. The fact is, he touched on a fundamental problem of our time - "go to the country, the forest, the parks and seashores, to get away from it all," an abandonment of our cities in the minds of many people. What a paradox: We cannot abandon the places we live and we cannot accept them as they are. All of this points out what we might refer to as our basic resource needs; the need for quality, balance and a resource morality.

The general public is just beginning to realize that open space, natural beauty, clean air, etc., are natural resources. Like peace, they must be continually pursued. Going back to the turn of the century in this country, there seemed to be little concern about an adequate supply of natural resources. Supply was generally adequate to meet demand. If the air of turn-of-the-century cities was fouled by coal burning furnaces, at least the water was clear and relatively plentiful, automobiles were not yet gulping gasoline, airplanes were not yet guzzling jet fueld. (Aircraft dump almost two tons of unburned hydrocarbons per acre on Washington, D.C. in a year's time.) The demands for electric power and other forms of energy had hardly begun. Washing machines, refrigerators, air conditioners and TV sets were not yet making urgent demands upon supplies of iron, copper and aluminum. The full impact of wasteful exploitation which had taken place on much of our forest land had not yet been felt. Consequently, there was little concern or interest in how this country's natural resources should be allocated. But today, on practically every side, dissenting arguments and even bitter struggles revolve around issues affecting our natural resources; primary examples being the Redwoods, Grand Canyon and Cascades controversies, to cite the most obvious.

In economic terms, increased affluence of people has historically proven to breed insatiable appetites for more affluence. The resultant imbalance relating to our natural resources is obvious: limited supply, unlimited human demand.

We, in the Bureau of Outdoor Recreation, are tempted to view all land and water resources as having outdoor recreation value of some kind. However, in any program of land use, these values must be measured in terms of their importance to the public welfare. In certain areas we find that the tangible natural resources such as timber, minerals, and water are of such economic importance that the public interest can best be served by a management program oriented primarily toward the sustained utilization of these commercial products. In such cases, recreational benefits might be minimized or even conceivably eliminated. Conversely, in other areas, recreational benefits are dominant, which means that the commercial use of natural resources, however well managed, might be greatly reduced or again perhaps precluded. Between these two extremes is the area where most of our challenging problems occur -- what kind of management program can satisfy both these needs. But our problem is even more complex than that.

For example, tremendous confusion exists in our uses of the land. One agency helps landowners drain marsh land by paying part of the cost while another tries to maintain them for waterfowl production. Federal land is sold for $1.25 per acre provided the purchaser will go to the expense of developing it for farming. The same landowner may be paid not to produce crops on other land he already owns. Each of these seemingly conflicting programs has a valid base; it is achieving a proper balance that is the difficult aspect to resolve.

These apparent contradictions are a part of a seeming maze, complex and confusing to the point that no one is able to keep track of all of them. They are not limited to agricultural programs but extend into our highway programs, urban renewal programs and recreation programs. Some of the most bitter public controversies are fought when natural resources are threatened by highway construction. Urban renewal programs often threaten structures that have important historical values and that help contribute to the city's character.

The same kind of apparent conflict of objectives is most apparent here in the State of Texas (site - Galveston Bay Drainage). If you consider the foregoing a challenging issue, consider the difficulties inherent in the legislative maze, old and new, intended to guide resource use. More than 5,000 public land laws apply to Department of the Interior operations alone. Interpretation of these laws becomes more difficult and updating is needed. These laws initially had the purpose of opening up the West, but I am confident the people of California, for instance, are not yearning for more residents.

Speaking of the complexity, let's get specific (discuss oil shale). Bureau of Mines, Federal Water Pollution Control Administration, Department of Interior, Bureau of Land Management, Bureau of Sport Fisheries and Wildlife, Bureau of Reclamation, U.S. Forest Service, Federal Power Commission, State, Counties, Oil Industry).

Many problems in managing recreation resources just simply have not been faced. Each type of recreation area from city parks to wilderness areas are established because they have specific values and purposes. Once the use of these areas passes a certain point, the original values for which they were established often begin to deteriorate. In other words, every type of area has specific carrying capacities. Vegetation, climate, use patterns, all affect these carrying capacities.

The problem of deciding where this point is, is extremely complex. Each individual has a different opinion of what it should be. If it's set too low, the amount of needs that can be satisfied is decreased and demand for additional areas is increased. By setting the limits too high, the quality of experience is lowered.

Yosemite National Park provides us with an excellent example of this dilemma. Personnel with the Colorado Game, Fish and Parks Department recently made a backpacking trip across the proposed San Juan - Rio Grande Wilderness Area. They were so disappointed over the great number of people, horses, and camps present that they say they will never return. Their opinions as to how many others should be there may be lower in relation to the average person, but the point is that this area is already being overused in the eyes of some people.

New York City has recently attacked the problem by closing Central Park to automobile traffic as it had become so congested and even hazardous that corrective action had to be taken. The action has been a surprising success and other cities are trying the same.

Restricting use of a city park doesn't sound as complicated as deciding when a wilderness area is no longer wilderness. Unfortunately, today's urban park user doesn't expect much more than some space. The so-called heavy breather has much more demanding requirements.

These problems are becoming more intense and complex at an alarming rate. Many of the first steps in controlling use of recreation areas have already been taken. The next step will probably be more intensive zoning by time and activity. It may eventually work out that horses will only be allowed in wilderness areas under tight restrictions or even barred in some instances and bicycles permitted only on week days in city parks. Solutions to these carrying capacity problems are going to have to be based on more than just intuition and tradition.

We need to apply the best brainpower, the best techniques to solving these old dilemmas as well as some critical new ones.

Air pollution is increasing at an unprecedented rate. How can we prevent the next catastrophy as happened in New York City? Where will it take place, New York? Los Angeles?

Can we expect industry to stop dead or automobiles to be outlawed because of pollution? Not likely.

Solving many resource problems is a matter of coordinating all levels of Government and other interests. It will require new laws and new thinking to solve others. Of course, we should all be encouraged by the amount of legislation passed recently concerning the improvement of our environment. But new laws aren't the whole answer. We must lift our sights. We should be knocking on the doors of the braintrusts, the space age thinkers, right now.

The establishment of the Bureau of Outdoor Recreation was one step in the direction of coordination. Its objective is to assure that all Americans have the opportunity to enjoy the out-of-doors, and to assure a rich diversity of outdoor opportunities that will enhance the quality of American life. We have a number of programs and responsibilities with which we endeavor to accomplish this objective. We administer the Land and Water Conservation Fund which financially assists States and local governments in meeting their outdoor recreation needs. The Bureau is responsible for submitting to Congress next year and for revising every five years thereafter, a Nationwide Outdoor Recreation Plan. The Fund also plays a major role in the acquisition programs of the U.S. Forest Service, the National Park Service and the Bureau of Sport Fisheries and Wildlife.

The Bureau is also engaged in special area studies, individual water project studies and coordination of the 30-some Federal agencies engaged in outdoor recreation. This, in turn, involves legislative review, budget review, program review and public opinion.

Solving most resource problems is not a question of either/or as many people feel. Industry can have the water it needs for producing material goods and the same water can be used for recreation. A parcel of land can produce many goods and the production of one doesn't mean the production of the other has to be forsaken.

Fishing a stream doesn't necessarily reduce the amount of livestock forage produced along its banks. Using schoolyards as playgrounds doesn't reduce the quality of education available in the school. Maintenance of historical buildings doesn't require that the building become rundown or prevent construction of new buildings. Satisfying recreation needs is often a matter of making the most productive use of the resource; not a matter of devoting one stream to fishing and another to livestock production or using schoolyards for recess play and building additional parks for use after school closes.

In the long run, education is the answer to most of our natural resource problems. It is necessary that each individual understand that he is a part of nature and that maintaining a balance in our environment is a necessity for mans' continued existence. Everyone will have to have at least a rough idea of the ecological concept. Aldo Leopold in his classic Sand County Almanac wrote:

> "We abuse land because we regard it as a commodity belonging to us. When we see land as a commodity to which we belong, we may begin to use it with love and respect."

When the average individual has instilled in himself a resource morality and understanding of our environment, many of our natural resource problems will no longer be so difficult to resolve. Correct management will be a way of life.

In the last analysis, solving natural resource problems is a matter of approaching them on a sound ecological basis and then setting informed priorities. We do not have the luxury of time to mature. Value systems are changing - the communications gap is widening. It is no longer sufficient to decry the vanished species without giving reasons.

However, let us not deceive ourselves in another aspect of our conservation effort. Politics is also an integral part of the conservation movement. There is nothing wrong at all with this fact; however, when we are dealing with natural processes, the political leaders and their electorate need facts and increased ecological understanding. I submit that we are not moving fast enough in keeping up with the need for scientific facts on which to base today's decisions. It is in this area that all of us involved in this field need to move much more rapidly. We say, give us the money and we'll give the policy maker, the legislator, the facts on which to make his decisions. This is going to require a better, a much better, selling job on the part of all of us than ever before. Maybe we should stop asking for money for "biological research" and start calling it what it is -- "human survival".

If I were to try synthesizing my remarks or more importantly what I have tried to communicate I would perhaps do it in this way. It is about time we change the image of conservation and what constitutes recreation -- not only its image but its meaning. What do "people" think about when they think of conservation? The management, administrative and legislative processes preserve animals, plants and historic and natural places but seldom do they relate it to mankind. Such connotations are generally indirect. We can expend fantastic economic and manpower resources to build roads to serve people, to build vehicles that will transport people and have a defense program to defend people, and so on ad infinitum. Why is it then we have not been able to give the conservation of mankind the same relative importance? If you violate the law, rob a bank or deface a person's property, public indignation through the judicial process will quickly make itself felt. But jeopardize other peoples' health by polluting a stream, the air, or the food he eats and the public indignation is in no way comparable. Is not man's physical or mental health as important as his changing. I believe that the inconsistency in the relative values of the things I have just been discussing are the types of things that we the people can and are doing something about. This is the basis for my optimism. I see growing interest and progress in the highest kind of conservation that mankind can devote himself to -- the conservation of the human resource.

THE HUMAN RESOURCE BASE

by

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Moral Concern for Recreation Activities

Let's first ask ourselves, "Are today's leisure activities a true expression of today's culture?" In a recent issue of the Saturday Review, Marshall Fishwick opened the lead article in this way: "Once upon a time every man was a tiger. Pluck and luck prevailed. Darwin was in his heaven, all was right with the world. Then came the day of the zebra, with his gray flannel stripes, his togetherness, and his tendency to run scared. Twenty years after World War II, old warriors ask: 'Has the land of the free become a zooful of zebras? College youth, they insist, should toot horns, snuggle blondes under raccoon coats, do or die for old Siwash. Don't follow the bearded herd to protests and sit-ins, they urge; conformity to the left is even more corroding than conformity to the right. Be yourself even when it hurts.' Nonsence, the new generation replies." "How else could an individualistic people be expected to evolve in indigenous cultural tradition out of social confusion, but by consulting, observing, and censuring each other?" The result may turn out to be good or bad, but we must live with and by consensus. So says the White House, and so must we. Why teach lessons of rugged individualism that don't correspond to contemporary facts? Today's frontier is nothing like Davy Crockett's; the sooner we understand that, the better." In other words, today's society is saying, "Be other-directed--be part of the crowd, part of the herd."

Sociologists and social critics have addressed this problem; they're asking questions like: "Are leisure activities an indication of what we are? Who we are? And what we want to be?" Kaplan has asked this question in the lead chapter of his interesting book, Leisure in America; and he believes that leisure activities certainly are some indication of the values of contemporary society and of socially-approved or socially disapproved activities.

And so, taking off from these initial ideas from Fishwick and Kaplan, we can perhaps gauge the life styles of Americans from their leisure activities. For example, we can ask such questions as: Do the recreation patterns of today indicate that most Americans are uprooted and alienated from any sense of values? Are they conformists? Or are they individualists? Are they status seekers? Are they other-directed?

Others, such as Schlesinger, also wonder about contemporary society. Schlesinger has this to say: "Will the epoch ahead be one when the American people, seeking mass distraction and mass surcease through mass media, will continue to grow more and more indistinguishable from each other? Or will it be an epoch when people will use leisure creatively, to develop their own infinitely diverse individualities?" He's not at all sure about this. And I often wonder, as I flop into a chair and scan the TV Guide, whether I am falling into this trap!

And finally, this normative question of moral concern for the nature of the leisure time activities. Should recreation managers be concerned with the "usefulness" and "constructiveness" of leisure activities? This is a current controversy in our field. Some believe that leisure time activity is recreation only if it is "constructive". I was talking with Walt Hopkins about this at noon and, I've had several interesting discussions with Frank Brockman on this same topic. I think that Dr. Reid will discuss this question in detail.

However, this moral concern is real. Some of us have wondered, "Is leisure growing faster than our capacity to use it wisely?" Well, this is a normative question, of course. You once start talking about "wise", you have to say what is good and what's bad; and automatically, this means you need some criteria for judging what's "good" and what's "bad". Then you're stuck on the horns of a dilemma, because you must select the characteristics for what's "good" and "bad"--and that's a tough one!

In view of all this, should we press for formal education in the use of leisure? We've all heard about the possibility of adding this to high school curricula. But curricula are full, even now, no matter whether we're talking about grade school, high school, or college. And any time that a new course is proposed, there's always a problem of what will be dropped to make room for the new course.

Distribution of Leisure

Even though leisure is spread unevenly through the society, the use of leisure is important. For example, we know that a professional man will probably have even less leisure in the future than he has today. And yet, other people may belong to a blue-collar class--such as the electricians--and are already enjoying a 32-or 36-hour week. Their work ends as they walk off the building site that evening, whereas the professional man takes his briefcase home. We're all familiar with this syndrome and with this unevenness of the distribution of leisure. We probably need not worry very much about our professional using his leisure time wisely, because he's not going to give himself much leisure! But some people are going to have more leisure.

Why do we have this kind of uneven distribution? Why is it that the professional man takes his briefcase home at night? Well, you all know the story here. Many of us have been brought up on the Protestant work ethnic, and we're hung up on the idea that work is good, and leisure is bad. And we get a lot of personal satisfaction out of our job, so we take work home. Maybe we're facing deadlines that we let ourselves in for, since much of our professional work really involves our own goals and standards. In contrast, the man working on a wage-type job is taking orders from his superior and has a strong union to protect him and to tell him how many hours a week he can work; he doesn't set his own goals in the same way that a professional man does.

We can expect some difficulties with the extra leisure that some of these folks enjoy. Let's say the electrician goes from a 32-hour week to maybe 28, 24, or 20 hours per week. I can see some problems coming up here, and so can others. For example, what's his wife going to do with him while he's home? I imagine you all have had the experience of occasionally coming home an hour early. My wife greets me on such occasions with "My gosh, I didn't expect you home yet! What are you doing here?" I upset her schedule for the whole day! I can hardly imagine what most of today's wives would do with a man around the house three days a week, instead of two days a week. The marital adjustments would eventually work out--but there would be a period of discord!

How would our electrician fill his extra leisure time? Now, it may be that he can take his leisure time in fairly big chucks. If so, he'll want to go on vacations. But will he have enough income to afford the kind of activities he wants? Let's say that our electrician has taken his extra leisure as a 2- or 3-month vacation, as is now available in some trades. Can he take his family on a long trip? What about his kids? Certainly, all electricians can't take their summer vacation for two or three months when the kids are now out of school. Should the schools offer staggered terms in some way so that schooling can be adjusted to the time that the father is off the job?

Socio-Economic Factors

Let's examine the socio-economic factors that influence outdoor recreational activities. Most of you are familiar with these factors, so I'll just mention them briefly.

According to the Outdoor Recreation Resources Review Commission, age is the most important factor influencing outdoor recreation activities. Youngsters engage in those activities that require much physical energy; activities like swimming and bicycling are mainly for the young. Some activities are held throughout life, such as camping or fishing or sightseeing. A person who acquires a taste for these in youth is likely to keep this activity throughout life. Other activities, such as walking for pleasure, start off high in youth, then drop during middle age, and then rise during the retirement years. Boating is an activity that tends to sustain itself; so do hiking and nature walks.

Another important socio-economic factor is income. In general, ORRRC surveys found that participation in outdoor recreation rises as income rises. This was generally true for summer activities. But participation in outdoor recreation over the whole year was highest in income groups between

$4,500 and $8,000 a year. Now what does this suggest? People with family income over $8,000 per year are obviously taking their recreation in some other way--or these may be the professional people who are giving themselves only a little leisure time.

Occupation, you remember, had some bearing on outdoor recreation. Farm workers were very low in outdoor recreation participation. I think that other outdoor trades may be pretty much the same. For example, I remember that when my logger friends took a vacation, they didn't go hunting or fishing; they went to San Francisco to live it up!

We also found that people liked to select activities that gave them a change of pace. Professionals, clerks, and salespeople who are cooped up during their working hours were among those with the highest participation in outdoor recreation.

With just these few examples of how socio-economic factors affect leisure activity, let's examine some of the trends.

Trends in Socio-Economic Factors

The change in age distribution is probably the most important current trend in society and in outdoor recreation. Half of our nation's population is now less than 26 years old! All of us have seen this effect in advertising--especially on television and radio--and in the whole appeal to youth. We've seen a lot of emphasis on youth in selection of recreation activities, too.

We also have more working wives now than formerly. This is an interesting development, because it means, actually, that we've proportionally less women in the home than previously. Therefore, presumably, those wives do not have to be entertained during the day. Perhaps we have fewer wives sitting at home listening to soap operas than we had 10-20 years ago!

Our family incomes have been rising. This has been attributed partly to more moonlighting, partly to more working wives, and partly to higher wages. Will this higher income mean that we'll have more money for outdoor recreation in the society at large? I'm not sure. It depends on the three factors: the proportional importance of working wives, moonlighting, and higher wages. If most of this higher family income comes from higher wages of the primary worker (usually the husband) then we may see more and more outdoor recreation per family. This is especially likely if the primary worker is not a professional man. On the other hand, if the higher income results from more working wives or from moonlighting, the amount of leisure time is cut down--and we won't see as much increase in outdoor recreation as you might be led to believe by the higher family income statistics.

There's been a great increase in white-collar workers, and this would mean that we should experience more outdoor recreation participation. Blue-collar workers have increased less rapidly; they were somewhat lower in outdoor recreation participation than the white-collar workers. And there's been a decrease in the number of farmers. This won't affect us very much in outdoor recreation because farmers never participated greatly in outdoor recreation. And there's a rapid growth in service workers. However, service workers typically have not been high in outdoor recreation participation.

Finally, the Bureau of Labor Statistics has established a stabilization of real leisure since 1959. Their statistical analysis has revealed that average leisure per family is no higher now than it was in 1959. This is due to such factors as moonlighting and working wives.

Trends In Outdoor Recreation Activities

Let's now examine current participation and some trends in outdoor recreation. The most recent document is Outdoor Recreation Trends, published by the Bureau of Outdoor Recreation just last year. The trends results refer only to activities during the three summer months and are based on a survey during the summer of 1965. Popularity of some activities has been apparently shifted since 1960. Walking for pleasure now shows up as the number one outdoor recreation activity. Swimming was second and driving for pleasure was third. So, the 1960-1965 period has apparently seen a shift in the relative popularity of the top three activities. Playing outdoor games or sports has held its place as number 4, but bicycling has come up to be number 5, then sightseeing, picnicking, fishing and so forth. Camping, hiking, and water skiing are still way down the list, almost to the bottom of the list. I've insufficient information to compare these results rigorously with those of the 1960 survey. Some of these apparent changes may simply reflect a difference in techniques of the two surveys.

How about trends to be expected between now and 1980? BOR expects water skiing to show the highest percentage increase among the outdoor activities. The second highest percentage increase is expected in camping and in hiking. BOR also expects these same three activities to show the highest rate of increase from now until the year 2000.

Now about the changes in participation rates? Based on the 1960 survey, the Outdoor Recreation Resources Review Commission expected a 20% increase in summertime outdoor recreation activities in the period 1960 to 1965. In fact, BOR thinks it's increased 51%--in other words, twice the percentage increase that was expected. The Commission expected that summertime outdoor recreation activity would increase 187% between 1960 and 2000. It's now being predicted as 293% in that time period. Have most of you observed an unexpectedly high increase in use of your recreation areas? Summertime outdoor recreation activities are expected to increase by 160% between the 1965 survey and the year 2000. In other words, you'll have to more than double your capacity for handling visitors in order to provide enough facilities by the year 2000.

But these numbers are just numbers. I'm sure they're based on the best estimate that BOR could make, given the limitations of time and money for their survey. Still, the results are estimates rather than facts.

Are Predictions Reliable?

Finally, let's look at some difficulties of predicting participation in outdoor recreation and at conditions in the society at large.

Many factors may alter the expected participation. First, our participation rates for outdoor recreation are based on cross-sectional analyses rather than on time-span analyses. Therefore, our participation rates are related to socio-economic characteristics of people and their recreational activities only in the year of the survey -- for example, the year 1960 or 1961 for the ORRRC studies. How do we know that these were representative years. And even if they were, we know that recreation preferences are changing. So the data we are using may be poorer than they should be. As we go on to collect more and more statistics such as this 1965 follow-up survey, we will have a better estimate of such basic statistics as participation rates.

Secondly, free time may be taken in many ways. Let's assume that some of our citizens get quite a bit more leisure time. Recreation activities must be somewhat related to the available length of leisure time. If workers take that extra free time as a shorter working day, they must still work five days a week. This means that their extra leisure must be used under these conditions, and we could expect an increasing demand for urban-oriented activities that can be done close to home. However, let's assume that other workers may take their extra leisure entirely as a two-month vacation. This changes the whole picture. If many folks in the United States take extra leisure this way, travel agents and all the tourist-type folks are going to see a tremendous boost in business. We may see a lot more family touring and international travel if the kids can be released from school at the right time. We will have a still different effect if leisure time is taken by working 8 hours a day but only 4 days a week. In this case, many people will have a three-day weekend every week. As managers, we would see much more use of our outdoor recreation areas within a half-day drive from towns and cities. We should also expect more use of resorts keyed to desires of city dwellers, and I would look for more activities based on weekend camping.

Competition from other leisure activities may also affect our predictions of outdoor recreation. We have no idea whether persons now spending 10% of their leisure time on outdoor recreation will spend 10% of their time on outdoor recreation 15 years from now. They may find some other form of leisure activity more attractive than outdoor recreation. We cannot expect stability in the patterns of preference or participation in outdoor recreation. Facilities built to suit today's preferences may not suit the needs of visitors 15 years from now. This is an almost unavoidable risk, but it can be minimized through periodic surveys and the estimation of trends in preferences.

Preference also vary among regions of the country. For example, the recreation habits of Southerners are much different than those I observed in California when I was there. Hunting and fishing seem to be the big activities here, while camping is less popular because of varmits, insects, snakes, and so on. In California's high country, you don't have those problems and camping is much more attractive.

Summary

In conclusion, we can say that the American society is quite dynamic. Changes occur constantly in factors that will influence the general nature of recreation within the society. Since half of our population is now less than 26 years old, we need to provide more opportunities for active recreation pursuits such as hiking and swimming. Leisure time is greatly affected by the effects of shorter workweeks, more second jobs, and more working wives; these effects vary widely among individuals in the society. And we must expect change in the overall preferences for specific leisure activities.

Because of these and other dynamic factors, recreation managers should re-evaluate the style of recreation needs and preferences in the whole American society every five to ten years. Such re-evaluation will help us to provide the opportunities needed and desired by our visitors.

But our job is not limited to provision of recreation opportunities, in response to expressed desires. How shall we answer the challenge offered by social critics? Should we, as recreation managers, provide recreation opportunities and encourage recreation activities that are considered to be "constructive" by some? For example, have we an obligation to encourage activities supportive of the democratic form of government? Should we become involved in the moral aspects of recreation?

And what are the implications of these questions on proposals for a formal education for leisure? Certainly, the affluence of our society and its large amount of leisure favors education for the uses of leisure. But should that education be supportive of particular "constructive" uses of leisure, or should it simply discuss the wide range of activities available?

The social problems we've been discussing are truly opportunities and challenges in disguise. How will we act to meet them?

ECOLOGICAL FOUNDATIONS FOR RESOURCE USE

by

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I shall speak to you for a limited time. Then we'll have a question and answer session. This subject of recreation is quite broad. It runs the gamut from an amusement park in a setting of concrete and steel, to a wilderness area. The ecological implications, and principles that apply are many; and, I find difficult to organize.

How many of you have seen this: "Standard Land Use Coding Symbols"? It comes from an unexpected place--the Urban Renewal Administration, Housing and Home Finance Agency, and the Bureau of Public Roads in the Department of Commerce. But your affairs are treated in this publication and you'd better get into the act before the revision. This was published in January 1965. At the first digit level of generalization, there are nine land uses: (1) Residential, (2 & 3) Manufacturing, (4) Transportation, Communications, and Utilities, (5) Trade, (6) Services, and then your interest, number (7), Cultural Entertainment and Recreational. My business has been primarily in (8) Resource Production and Extraction, and in number (9), Undeveloped Land and Water Areas. The second thru 4th digit levels of your number (7) is a breakdown to almost everything from penny arcades and miniature golf to National Parks.

I shall consider only land areas. Involved could be sports activities such as golf, horseback riding, skiing and tobagganing, camping, picnicking, and the resort business. There are general resorts, dude ranches, health resorts, ski resorts, and hunting and fishing clubs. At the parks and general recreation level, recreation management is land-based. In a sense, even water activities are land-based. Water management usually land and cover management. This is preceeded by land-use decisions. You recreation and parks men will be faced with land use decisions. There's a wide range of choices; I suppose we should list hard surfacing as one possibility. Then, cultured vegetation of any type--usually having a high maintenance cost--and then volunteer forest vegetation or volunteer rangeland vegetation. It's in the latter two that the science of ecology will be most helpful. Here you're dealing with volunteer vegetation, secondary plant succession, and possibly a climax vegetation of some sort--depending upon soil and climate.

Unfortunately, the vegetation, water, soils, and wildlife of many recreation areas will be subjected to influences beyond your control. The exceptions would be vast recreation areas, such as national parks and national forests, where entire watersheds are controlled. In other recreation areas whatever is done to the croplands, range lands, and the forest lands around your area, will dictate the quality and quantity of your surface waters, fisheries, wildlife, and drainage ways. Gullies may start above and cut through your areas. You will be much concerned with surface waters, but you should never forget that water management ultimately is watershed management. If you don't control the watershed, you don't control the surface waters very long.

You will be concerned with conversions in land use. In some areas you will be establishing recreation as a primary land use by converting cropland, forest land, or range land. To say "multiple use" will be of little help to the administrator or the technician, when getting down to specific acres. For example, the site selected for intensive recreational activities may now be forested. In the natural grassland climates of the world, this forest would be bottomland hardwood forest. These are prime recreation sites in natural grasslands because people want trees and shade. Now we all know that some of these sites will be used primarily for forestry, and some for recreation. We cannot, and will not, have the same specifications and standards of management applying equally to both. But you will need to think about forest reproduction in both, or you'll eventually run out of shade. This was brought home to me many years ago.

I was in Forest Park in Fort Worth in the mid-thirties, with a forester. The city fathers were making a beautiful park out of this natural hardwood forest on bottomlands of the Trinity River which flows through Fort Worth. They had a lot of foresight in setting it aside for a city park. But the management was making it pretty, by leaving only the big trees. The forester remarked, "if they don't leave some little ones, some day they won't have any big ones."

This will be a problem in any area where you want to preserve shade. You must go to forest management to that extent. You must have some little trees coming up, or some day you're not going to have any big ones for shade. Of course, in an intensively managed area, you may move in full-size shade trees when the old ones die.

In either case, it won't be forestry. You will not favor the same species as you do in commercial forestry. And you'll not cut the same kind or size of trees in the same cycle. I'm emphasizing the point--to say "multiple use" won't get the job done. We must choose a primary use if you seek adequate management standards and specifications.

If you deal with vegetation, you get into all the factors that limit growth and survival. Some ecology textbooks present enough factors to scare you off forever. Dr. Paul Sears of Yale grouped them. He said all factors limiting growth and survival can be put into four categories, and they are climatic, edaphic, biotic, and cultural. Notice that the first three operate in unthinking nature. You and I probably are not accustomed to thinking that our cultural efforts might be a limiting factor. I mean, we see any activity of ours, such as cultivation, weed and pest control, fertilization and irrigation, not as limiting factors but as helping. Dr. Sears listed them as among possible limiting factors in growth and survival.

We have generally viewed our efforts as offsetting natural limitations on growth. We have had little appreciation, actually, of the cycling of materials by plant producers, animal consumers, and micro-decomposers that nature had worked out through eons of time to fit all kinds of climates and soils. Yet we have only to think of the millions of acres where we removed natural cover of forest or range and raised our so-called improved plants a few decades, lost a good part of the topsoil, and then decided that natural range or natural forest cover, was better after all. You can go ten miles out of Bryan-College Station in any direction and see these abandoned fields. We've more or less permanently reduced the potential productivity on those lands. Here the cultural element, not nature, has imposed limits on growth and survival.

In the management of natural forest cover and *natural* pasture cover (range), we rely on secondary plant succession to restore the potential plant cover. We can predict what the cover will be for each complex of climatic and edaphic conditions; from Desert Plains Grasslands near El Paso to towering Pine Forest in East Texas, and so on, around the country. The reason they're different, of course, is that El Paso receives about eight inches of rain while on the Louisiana border we average about 55 inches per year. It's quite difficult to overestimate the importance of just plain average-annual-precipitation as a determinant of what the potential plant cover might be.

We need not concern ourselves here with the monoclimax hypothesis *versus* the climatic climax hypothesis since monoclimax viewpoint cannot contribute to land-use decisions on a specific tract of land.

The endaphic climax viewpoint, however, is indispensable. Within a climate, we can compare vegetational development on the same kind of soil in various places and arrive at a concept of the endaphic climax for the kind of land we may be dealing with. When you take it over, it may be in volunteer annual weeds. But, with that sort of a look-around, you can tell which way it's going and where it will stabilize if you don't try to develop a cultured (unnatural) type of vegetation.

In contrast, consider the producer of cultured vegetation; for example, a putting green, a turf of so-called improved grasses. We must always ask "improve for what?". Maybe it is improved grass for economical management as volunteer vegetation is quite great. He doesn't operate *with* secondary plant succession. He absolutely has to prevent it, because secondary succession is going to destroy the cultured type of cover. Things will volunteer in with it and displace it. That is what succession is about, up to a climax. I hope these ecologic facts will someday be more widely appreciated. When that time comes, we will no longer speak of a ground cover of domesticated plants as if it had much in common with natural vegetation. To reiterate, secondary succession destroys the former and restores the latter.

Now in the matter of land-use decisions, these cultured plants are going to take a lot of inputs for maintenance. You must have a good soil, with good depth, with an adequate source of soil moisture, on a fairly gentle slope, I think, to make it pay to maintain time. Cultured, tame, or domesticated plants, I would say, should be limited to land that would be classified as arable, land that can be maintained without erosion hazard, without its natural cover. The greater inputs for their maintenance will have to be repaid by greater outputs than would be possible under natural vegetation in excellent condition.

As you travel about the country, areas occupied by cultured crops are easily identified, because they are usually monocultures. One species, usually annuals, such as corn, wheat, cotton, oats, rice, and so on. Among these, we have increased yields per acre tremendously, but I submit we've done a poor job of picking places where we could grow them for more than a decade or two at a time.

Ranges and forests, of course are not composed at annuals; they're composed of perennials. They're not single species or very simple mixtures like cultured crops. They're very complex mixtures of perennial species.

It is a cultured crop, the cultural treatment determines where it will grow even to the extent of irrigating it. In other words, you must be prepared to offset natural climatic and edaphic limitations.

If you deal with volunteer vegetation, you're going to have to learn about natural climatic, and edaphic limitations. And for that I think you may as well come to what is called a continuum viewpoint. It holds that there are gradients in the physical environment and that you may therefore expect gradation in the natural vegetation. In school we were shown maps of discreet units. I mean, here was this kind of forest and there was a line around it on the map.

For twenty years, I've traveled east and west across these prairies and plains from the Gulf to Canada, and if you look at comparable soils--say you look only at sandy loams all the way east to west--there are no *lines there. Why should there be? Climate doesn't cut off on sharp lines*--arid, semi-arid, sub-humid, and humid. Lines are shown on the map, but there are no lines in reality out there. And soil and vegetation are both very largely products of climate. In the current view, when you do find a nice sharp line in the vegetation that you can easily put on a map, you're looking at an abnormality.

Previously, you tried to set up a classification of natural vegetation on the basis of readily recognized boundaries. Now instead of finding discreet units and analyzing them; you analyze gradation in the vegetation as related to gradient in physical factors of the environment. I think the continuum viewpoint will be useful to you.

In planning cover for recreational areas you may deal with the gradient from the lowest precipitation zone at the eastern base of the Rocky Mountains to the high precipitation zones of the forests of the eastern USA. You grade up eastward through where short grasses are predominant, then mid grasses, then tall grasses, then tall grass and short trees (temperate zone savanna), and then you finally get to forests. There is a temperate zone Savanna between grasslands and forest lands just like there is in the tropics and it runs from here to Minnesota. We're in it right here. This was once post oak Savanna--tall grasses with squatty trees. As to forest site index here--for you foresters--on the uplands it's less than fifty feet at maturity. The dominant native trees in the climates was post oak (Quercus stellata). However, within another fifty to a hundred miles eastward you've graded up to a site index of hundred feet at maturity on dominant trees. In planning the plant cover for recreation areas, you'll have to keep these continually in mind.

Now that isn't to say that within a grassland climate there are not forest areas. Major rivers and other edaphic compensations for the climate permitted trees to extend far into prairies and plains. Contrawise there are very shallow soils deep in forest climates that have no forest potential. I think of the Sheperd of the Hills country of the Ozarks, underlain by dolomitic limestones with hardly any fissures, at shallow depths. It was natural grassland because of edaphic limitations.

Savannas generally reach 100% canopy of woody plants through thicketization when you stop fire and graze closely. This has happened all the way from here to Minnesota in this transition between the mid-continental grasslands and forest climate. It also happens in Africa savannas. Once a savanna is thicketized, the complete woody cover inclines foresters toward mapping such land as forest land. I once went to the library in Lincoln, Nebraska, just a city library, and got a book of post office and freight addresses. I found a town named Savanna about where I thought Savanna ought to be climatically, in every state from the Canadian border to Texas. In other words, the early settlers, when they were moving westward on this continent, and got out of the forest into savanna, at least knew it was savanna. Hard telling how many places were called savanna, originally.

Looking at your program, it's obvious that in recreation management you are dealing with two whole worlds of knowledge, one derives from an impersonal investigation of cause and effect, science you might say; from chemistry and physics, to vegetation science, soil science, etc. The other world of knowledge derives from the study of desires, ideals, and value judgments. The first group is considered to fall within the natural sciences and the second group within the humanities. How do you put them together?--and make some decisions?

I'm borrowing here, probably from Dr. J.M. Clark. He says that this is the special province of ecology and economics, which come from the same Greek root, referring to the science of home and household. It seems to me that they are called upon to bridge the gap between natural science and the humanities. They should be central in subdivisions of recorded knowledge and planned research; but, they are not. The subject matter of ecology doesn't fall conveniently into any contemporary compartment of government or of institutionalized education. Not at this university nor in the province of any particular division of state or federal government. In fact, the current divisions almost prevent ecological reasoning. I think we'll admit that we need an ecological approach. We need massive change in the popular conception that man conquers nature. We need restructuring of institutions that operate in a manner inimical to ecological considerations. The standards and specifications we write should at least contain ecological cautions, widely distributed and understood, for making ecological concepts operational among non-ecologists. Coming back to this needed massive change in popular conceptions about conquering nature; since I often have pressed for vegetational covers close to climax on nonorable grazing lands, I've been accused of wanting to go back to the buffalo and the Indians along with the "natural" grass cover. Some, of course, think you can't have climax vegetation unless you also have the Indians and the bison to balance the natural ecosystem. You can have the climax type of vegetation. There won't be more than a 25% departure from climax composition. In view of this, I've had to develop what I call an ecologist's land management credo. See if you can agree with this--: "We can not return to natures way, nor can we conquer nature. Yet her laws are not subject to repeal. We know that when we upset the balance of nature, that is the balance between the living and the non-living, in one facet of an ecosystem, we must compensate artifically in another. Balances in nature can be rearranged, but imbalances are never sustained. Where man takes more from land or water than nature's annual output, the difference must be compensated for by his additional input, or it will be compensated for by losses elsewhere--to his ultimate sorrow."

Ecological considerations are a necessary break on an exclusively economic view of natural resource management. Ours is an economic society. Natural resources are of a physical or a biological nature. They form part of the ecosystem of which man himself is a component. Ecology is the sole science dedicated to the study of ecosystems. Economic opportunities for individuals and groups made possible through technology must be evaluated in terms of some kind of economics. And I would say ecological economics. That differs from ordinary economics in only one way, and that is the span-of-time factor. Ordinary economics is a fairly short-term look. But with a really long term look--perhaps a century--the economic look would probably not be in conflict with the ecological look. It would be somewhat of a brand of economics. It has been a privilege to speak to this group.

QUESTION AND ANSWER SESSION...DR. DYKSTERHUIS

Question--Would you elaborate on what you mean when you say that we haven't learned how to manage mixtures?

Answer: I mean our native grazing lands and our natural forest covers. When I said "we", I meant private land owners. I can speak for myself for range, I'll let you speak for privately owned forest lands, outside of corporation holdings that are managed by professional foresters. I refer to the woodlots that are managed by corn, cotton, and other types of farmers. They may be good cotton farmers or good corn farmers. But how are they doing in managing a mixture of perennials, plants that survive beyond the year. The Forest Service has data on what the private, non-corporate forests are producing in relation to potential.

HOPKINS---We all know that they're producing far less than their recognized potential. The reason I ask the question here was certainly not argumentative. These fellows here are, as you know, resource managers, and I pretend to be. And part of their task is to manage recreation sites, some where they'll apply cultural methods, and others where they're going to try to go back to, to some extent, the way Nature would have managed it if man had let it alone.

DYKE------I hunted around for a long time for a word for that. Just term the latter "volunteer vegetation". You don't have to plant it or seed it. It just comes in. That won't be stable, though, until it reaches a climax. You may want to artificially stabilize it somewhere at a point below climax.

To that extent, you're getting into cultural treatments a little bit. There is going to be gradation from concrete slabs to climax vegetation in wilderness areas.

Question--I think one of our greatest problems is that some of the lands we acquire for our projects have been under some type of a cultural management. One of our greatest problems is, of course, how do we get back to the natural situation as soon as possible? And how much cultural activity is it going to take? The other problem we have is that in developing water resource projects, we are changing our site condition around our project. We are putting water into sites and innundating lowland sites. And so we have an area of transition that we have to go through. How do we speed up this process to get our areas and our banks stabilized?

DYKE------If you want to go to natural cover, and you do use such things as seeding and planting, we call this hastening secondary succession. Instead of letting it progress at its own pace, you hurry it along, and there is a lot to be learned there. We've learned a lot in range seedings. I think the same principles apply whether you're dealing with natural forest or range. So many mistakes have been made and there is so much misunderstanding, that I think the data in this one page hand-out are well worth considering. The data were not gathered for this purpose but the principle has universal application. It applied if your purpose is to hasten the return of the natural cover, and you want to go into something like range seeding, or planting forest species in a forest site. You may go to the experiment station and ask them what kind of grass to plant. They'll show you their cultivated rows or plots, and one will obviously look better than another. Take a look at these data. If you had looked at these plantings the first year after planting, which one would you have picked? You would probably have picked Lincoln Brome grass. Wouldn't you? It is an introduced species. The second year you'd have picked out Mandan Wildrye.

It's a domesticated native. It occurred naturally around this experiment station, but the plant breeders had it in rows and selected a so-called "improved strain". It's just one strain of the native Canada Wildrye which occurs even this far south, but with hundreds of genotypes between Canada and here. In the fourth year, Crested Wheatgrass looked good. In the fifth year, the local strain of a climax dominant grass started to look good. Nine years later, it would have been your choice. What are the implications? Well, on land suitable for cultivation where you don't mind plowing it up again in a few years Mandan Wildrye, Lincoln Bromegrass, Russian Wildrye are good grasses. But, if it is the kind of land, or the kind of use, where you don't ever want to plow and seed again, the choice here is obvious, isn't it? A local strain, or preferably a mixture of local strains of climax grasses! Because they evolved there. They've withstood every climatic fluctuation. The soil developed under them. They've withstood various kinds of insect and fungi epedimics.

SOCIO-PSYCHOLOGICAL ASPECTS OF OUTDOOR RECREATION IN OUR SOCIETY

by

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I would like to shift from the focus employed by Drs. Wilcox and Bury earlier this morning; away from social trends to the individual--perhaps from the sociological to the psychological. I doubt that any of us here are competent to talk in this area. Certainly, I feel inadequate, but I believe there are some relevant things that we can at least discuss. I was reminded, as Dr. Bury mentioned different methods of structuring time off and various methods of reducing the work week, that I heard recently on a local radio a proposal for a specified number of 3-day weekends on a national basis. The commentator was saying that it would really be difficult trying to work this pattern into familiar tunes like, "I'm a Yankee Doodle Dandy/Born on the first Monday in July."

I have been concerned for a number of years about trying to find out a little more about the visitor or user. This goes back at least as far as 1959. At that time I conducted, in a northern county in Michigan, a pilot study on user-desires tied in with summer family use at various kinds of campgrounds. I wanted to identify differences in people as they camped by families according to their preference for city campgrounds, the more remote state campgrounds, or the still more remote national forest campgrounds. This was really very instructive. In a sense, I lived with these folks, interviewing them from dawn to dusk, seven days a week on a rational basis, employing relevant random procedures throughout one entire summer.

These were extremely friendly people. They wanted to talk. They had plenty of time to answer the fairly involved instruments that I employed. This included a questionnaire for the male head of the party, another for the female, and one requesting group or party information. It went so well and the data were so encouraging that the following October I went back into the same county to do a follow-up study of hunters. I wanted to attempt some correlations between the bird-hunters, goose hunters, deer hunters and bow hunters, and the information I had collected during the summer months.

Well, the result was that I very nearly got my nose broken. It was an entirely different ballgame. Maybe I should have known this, but I was young enough and unskilled enough that in a way this negative test--the negative results--did teach me something. This was that by and large these were stag groups; they were not at all similar to the family groups of the summer. Hunters didn't particularly want to talk and many certainly didn't want to be interviewed on record and would not fill out questionnaires. The fact that they happened to be there on a company plane, on a company expense account using expensive equipment was awkward enough that they didn't want any record made of their visit at all. More than once the response I got was, "If you want to know anything, we'll get our attorney brought in here tomorrow, but we aren't talking." So, from that point on, I've been extremely conscious of differences in visitor groups. Fortunately, fewer studies are being conducted today that are that naive.

One thing I've become convinced about as a result of my travels in connection with the ORRRC research is that the bulk of recreation users or visitors have an extremely limited concern for recreation resources or for their administration except as it impinges upon their particular enjoyment, at that single point in time.

As I was jotting down things that I hoped might be provocative--that might lead Dr. Bury and I and all of you into a discussion following these remarks, I decided to toss this remark at you. I'm almost persuaded that the quality of the resource is irrelevant. I feel that any natural or native resource, wherever it is found, is a pretty nice commodity until as people we start to mess this naturalness up. If that's true, it is quite an indictment. I think, then, what is important is to turn the coin over. Maybe what is important is to consider the quality of the visitor, as that visitor affects the resource. Now, this is just thrown out here on the table for discussion, but it may be worthy of discussion.

I think, too, we have a wholly inadequate understanding of why various activities are important to people. I'm disturbed that so many of the demand studies that are of necessity being conducted around the country today are being predicated in some fashion on, as Dick brought out, a socio-economic set of characteristics; a profile, if you please, of a certain base population which ultimately can then be used to derive participation coefficients--going through the whole business activity by activity. Well, I have a vauge uneasiness that this may lead us up a blind alley--if trends are based to too great an extent on existing opportunities. For many of us, in fact, feel there may be some new things just over the horizon. We're sometimes caught extremely flat-footed, because the new things don't fit into an established trend--they burst upon us too quickly.

I think the rapid shift from tent to trailer camping is an example from a few years ago. I know in my former state of Michigan, the self-contained travel trailer fits this category of a technological breakthrough, as it became important in a matter of three or four years. Unfortunately, just after the State had bonded itself to build a large number of very sophisticated $32-34,000 campground combination bathhouse-toilet buildings, over half of the people were arriving in trailers, and an increasing number of these were self-contained. I'm told about 85% of all manufactured trailers are now self-contained, so that the big demand is for dumping stations to service these self-contained trailers. Thus, Michigan was building facilities which were to be amortized over a twenty to twenty-five year period, but the whole game had changed in less than a five-year period. It's in this respect that trends leave something to be desired.

I'm becoming intriqued by the contribution that I believe motivational research can make in Parks and Recreation. We need that involvement; we must have behavioral scientists plugged in with us. I'm not sure any of us know how to do this, but certainly, many people are trying. I would like to think that there are an increasing number of scientists and researchers who are looking for an alternative framework to use, instead of participation coefficients and counting of numbers of people involved in various activities as a basis for making decisions about what facilities should be installed in subsequent budget periods.

I would like to discuss with you one of these possible alternative schemes. I've had this duplicated, so you can insert it into the section of your notebooks for this part of the program (Recreation Activity Classification). I read recently that all human action springs mainly from four basic psychological wants. Very quickly, these are response, or approval, or approbation. Second, recognition. Third, security. And fourth, a desire for new experiences. Now, you find sociologists and psychologists arguing even among themselves whether there are really four basic psychological wants or drives, or seven, or eleven, or nine. But let's accept that there are these four, as a way to get into this discussion.

Let me give you some quick remarks that seem to me to be important in relating this four-part model to recreation. Number 1. Response and approbation. The approval type of need people have. Let's call this "APPLAUSE-SEEKING MAN". Well, I would characterize this as the individual who feels there is a necessity for people to see him, for people to approve of what he is doing. In this sense I would think that he wants to be in a crowd. A crowd would reinforce his feeling of being involved in approved activity, and we'll find this individual in a peer group or some kind of a crowd where there's a mass activity and rather defined "rules of the game".

Some of the examples here might be surfing and water skiing, where we find zones set aside or areas established for water skiing. You'll find the person who just has to skim the beach, I believe, simply because he wants to display his skill before a larger crowd. Motorcycle packs and sunbathing students at Fort Lauderdale seem to fit this category.

In studying the use of ski areas associated with the ORRRC research mentioned earlier, a surprising element of non-skiing emerged. There were youngsters coming to New England ski areas by the trainload from Boston and New York every weekend. Many of them had the stretch pants, the fancy sweaters and all the paraphernalia, but they preferred slippers to ski boots and the lounges to the ski slopes. I'm reminded of an article in the Sunday supplement of the Houston Post recently, which contained a rather lengthy article on surfing. The recognized male head of the surfing fraternity on the beach at Galveston Island was quoted as saying, "Girls belong on the beach, not out here in the water with us; they are to look at, we don't want them in our way."

So I'd say, perhaps some of the inherent characteristics of this group would include: Youth, mobility, resistance to established regulations, a rule or dominance by some kind of subculture mores. Possibly, they attract the fringe members of society, those that are willing to ally themselves withthis, and possibly this indicates a group whose values and standards are not yet fully formed. If this be so, I'd suggest that the group mentality that emerges in these kind of activities poses a potential threat of vandalism or other kinds of violence in our park areas.

Let's go on then to the second one, which I'll call "SEARCHING MAN". The psychologist might list this under recognition or apprehending in the sense of seeking after additional information, achievement of knowledge, becoming better educated regarding the self or the environment, or all kinds of relationships, ecological and otherwise. How would this express itself if we were going to try to study this grouping of activities? What would we look for? I would say these: nature study, and interpretation; certainly, cultural programs, particularly those that people can participate in, such as vocal groups, string quartets, etc.; rock collecting; photography, any interest in the heritage or historical concerns. Meditation, privacy, solitude--these would be other characteristics. So it would appear that there might be a large group of activities that would not be group-related, in which the individual was primarily concerned with finding out more about himself, his role, his place in the order of creation of things. It might be, in fact, that crowds really inhibit a person's satisfaction or participation as he seeks knowledge or awareness.

A third characteristic listed by sociologists is security, and I've called this for want of a better name, "SEDENTARY MAN". I'd say this kind of an individual would be characterized by a desire for comfort, for self-gratification, avoiding any particular risks, and seeking to maximize his own comfort and well-being.

Now I don't really feel pleased with this category. In a sense, it seems most accurately to identify or characterize those people that we would suspect to be non-participants in outdoor recreation. The person who says, "Ordinarily I wouldn't give you a nickel for what I'm doing, but I must because my family's doing this, and I want to go along." I know, I've interviewed wives like this. Or, "I would rather be in a resort, but I can't afford it with six kids, so I'm in a campground".

The inherent feeling, the implicit thing, here seems to be: "I'll take part as much as possible on my terms, not yours." I believe that for this person the purist experience that we talk about is really of secondary importance. It isn't important at all. These are not ever black or white cases--they're all shades of gray, but this would be the person who has his set-up in a campground. But he's not in a tent, he's in a travel trailer with innerspring mattresses and lights and gas and he sits outside as the sun goes down. But he doesn't see the sun; he's watching the portable television that's hooked up to his trailer and has an iced Coke or glass of beer within reach. This is outdoor recreation on his terms, not on what we like to consider the proper terms.

Now, as I say, I don't really know if this person fits in here at all, but if there is a "sedentary man" who seeks security, he's not **out** mountain-climbing. He's the one who's playing golf with the golf-cart or seeking to convert a rough, hazardous, undesirable experience into something he can cope with, with the maximum comfort possible.

Just the opposite, I'd say, is the final category that fits into what the sociologists call adventure or competition, so I've called this individual "HAZARD-RISKING MAN". I'd say this individual is characterized by a compulsion for new experiences and by the need, the inner compulsion, to excell or to make some unique accomplishment.

Now possibly, this compulsion could come from a distorted desire to achieve power. Power over somebody else in a race, or over himself--as in the case of forcing himself to confront a known hazard and surmount it. I'd say examples here might be scuba diving, mountain climbing, sky-diving, survival camping, white-water canoeing, racing (whether in an automobile, a plane, or a boat), and various contact sports.

I'd say here the inherent characteristics are more alike in that groups are of minor importance. I think this, because even in a staged, in other words, a formalized risk situation, as in formal competition, there will still be a highly personal dimension, so maybe the competition really is inside the person.

If this is so, then what we really have here is several facets of a single personality at war with themselves. We see this all the time. We see an individual taking an extreme risk, for example, parachute jumping or skydiving, and yet, even with the risk involved, that person is meticulous and very careful in the way he packs his chute. Careful preparation gives him the maximum chance for survival. The same is true of white water--canoeing, or mountain-climbing, or any of these others. So even though he's minimizing the chance of physical damage, personal comforts are subordinated for this person, often to the point where the likelihood of death or severe injury is a real possibility.

Now, I suspect, this has been just one of many frameworks that we could design. Sociology and psychology have considerable bodies of literature that may have relevance if behavioral science researchers can be persuaded to apply themselves to recreation problems. I believe that if we can get enough researchers to work in this area, it may be possible to do a better job of predicting the kinds of activities needed, and consequently the kind of facilities and opportunities to make available. This would be a definite improvement over just counting the numbers of noses that are involved in various kinds of traditional activities.

For example, if we could derive some kind of a risk-taking index or coefficient, we might ultimately be able to predict that if .007 of any base population drops out of scrambling on motorcycles, they can be expected to show up in kite-flying on the back of a motorboat, or something else, because these are all expressions of the same kind of basic drives.

Now, looking at the materials I mentioned earlier, I'd like to move on to a related area. These references are provided as samples of available behavioral science works that have application to recreation. I would suggest adding these to your notebook. I want to briefly discuss the article entitled, "A New Numbers Game". This was reported in the Harvard Business Review, September-October, 1966, in "The Deterioration of Work Standards". It is the result of 14 years of research by Dr. Clare Graves of Union College, Schenectady, New York.

Dr. Graves suggests that human beings fall into seven distinct levels, but one level is dominant. So here we get into a quantitative discussion (most of us can count from one to seven). Dr. Graves proposes that human beings change levels--go from a lower level to a higher level, but only in sequence, and only after all the problems associated with the lower level have been solved. And he also says that some people have a deep sense of equilibrium, and they don't care to change from one level to a higher level.

Let's look at these more closely. At the bottom of the page on the chart is the lowest level, considered comparable to an infant. Here the person is primarily concerned with direct physical factors as they impinge upon his own person. Illness, enough food, shelter, warmth, comfort, etc. are dominant concerns. Here, the infant isn't too much concerned with survival, perhaps doesn't even recognize survival. He takes real chances, and fantasy is often confused with reality. This suggests that people, regardless of their chronological age in years may never progress beyond this point.

After perhaps two years of life or twenty years of life, the person has progressed and has solved all the problems of warmth, enough food, sustenance, enough sleep, etc. He moves then up to level number two, where he is primarily concerned with survival. Here, the basic response is to threat or force.

The reason these things are important to me is in trying to relate them to recreation. If we have people who demonstrate values, and certain kinds of conduct, how do we best deal with them? Well, Dr. Graves' suggestion is that there is one kind of person who responds best through the direct threat of force. If we could identify these people among our park users, maybe this suggests one way to deal with them.

After solving the problems at level two, a person may progress to level three. Level three is ideal for a secretary. Belief and adherence to a set of rules is important. They don't want the rules to be changed; they want to know exactly what's black and white, and they'll do it. They say, "don't change the rules on me, it confuses me." They don't like the unknown. They don't like anything questioned. They don't mind having controls imposed on their conduct, but they want to know what the rules are so they can play the game that way. As I say, this characterizes an ideal secretary: well-organized, knows what is to be done, how to do it, don't change the schedule. Thus, you could expect a person at this level to be very dogmatic, very positive concerning his beliefs. He doesn't want to be confused with any other facts.

Going on up the scale, level four is described as a value system built around the search for power--a materialistic individual. This is said to produce a good boss. There is a deep compulsion, a drive for authority to be boss, to make decisions.

Going up another step, after solving the problems inherent in level four would be level five. Here you have an individual who is really enamoured with committees, group decision-making, group thinking, a team player. This is a person who always wants a concensus. He is always running something up the flagpole to see what kind of response he'll get. So his basic motivation, as summarized here from Dr. Graves' work, is to belong, not to rock the boat, to be a good member of the task force, to sit with the committee and come to a common decision, of which he will be a part in the majority decision.

Going on then we get to level six--an individual motivated by self-esteem. He is concerned most about whether he squares with himself. He wants to realize his full potential; and he resents being told how to do a job. Confident of his own ability, you can't tell him how to do anything. He will quit first. "If you don't like the way I do it, get somebody else," he says. "I know what I want to do, I know how to do it, and I'll go where I can." This is level six.

Then on to the top of the scale, which is level seven. This is the individualistic person, but the non-aggressive person. He doesn't say, "The hell with it, I'll quit; I'll just go where I can do this job that I want to do." He is more the pacifist. He has conquered. He has put behind him questions of self-esteem and he is really driven by the desire to acquire and disseminate information. He doesn't have any black and whites in his life; he's all gray. He believes he can argue on both sides of any question. He becomes something of a mystic. He says, "It's such a large, all-inclusive scheme, there's so much involved here, we don't know enough; we just have to get additional information." About all you do with this person is try to support him, provide him a pat on the back and show him the things he is doing are really important and acceptable. Otherwise he is gone, he just will not subordinate himself to an organization.

Some of the kinds of examples used here are quite instructive. For instance, Dr. Graves in his work made a number of comparisons that I think are quite interesting. At one point, he suggests if you argue with your department head, he is probably a five and you are a six, because in life, as you solve the problems of one level of existence and go to a higher level, you don't necessarily get a promotion and go on to a higher job. In fact, this may make you unacceptable for a higher job, so you end up with somebody over you whose behavior patterns you can't accept. And in that case, you as an individual are in an intolerable situation and soon may be out of a job.

Maybe you've got wife trouble, and you've grown to be one of these sociocentric persons that is enamoured with group thinking. But your wife may still be operating on level three where she wants to be told what to do, she doesn't want to be a part of any group decision-making. She says, "Let's not talk about it; let's not have a family council, just tell me what to do and I'll do it." Or maybe you have kid trouble, because you're treating him as a level two and he's grown, maybe in a relatively short time, between level three and four.

Dr. Graves suggests that our whole U.S. society (and this is where we come back to recreation) is largely at level four and moving on to five. He suggests that our youngsters, for the first time in anybody's history, probably are at level five and struggling to reach into six. In other words, they're leaving the passive role of being on the team, being willing to accept the goals and the ideals that the family or the society wants them to be part of, and they're pushing out of these, trying to formulate their own self-esteem, their own better way to organize society.

This may be why many youngsters today will not accept or tolerate what the groups representing adult society are asking them to accept. Thus, President Johnson is characterized as a four, although he most often tries to make his speeches sound like a five, and that Hubert Humphrey is a five, a group-team committee operator, which leads to difficulties. If you argue with your department head, you may be a six, you see, trying to find a better way to do a job and resent being told how to do it by somebody who's really operating at some level that is beneath you.

Now why is this important? It may be that something like this is the basis for a new kind of social ethic. It may have application not only in person to person realtionships, but also in relations between international groups. One nation could be operating at a more advanced level than another nation. [illegible] raises some interesting questions. Does this mean that in the future we will have an obligation to raise an individual's behavioral level--from level two to level three, or from four to five, as they are numbered in Dr. Graves' typology? In a sense, isn't this really what we are suggesting when we talk about changing people's attitudes in relation to their recreational habits and preferences? In my opinion future recreation decisions that are based solely on numbers of participants and which ignore behavioral characteristics--personality traits, if you will--are likely to get into serious trouble. This is why I am so anxious to see greater involvement of our colleagues in the behavioral sciences.

Recreation Activity Classification

Much has been written recently regarding the computing of recreation use by counting numbers of visits, or visitors, or activity occasions, as a guide to the planning of future facilities to adequately handle identified demand. This approach requires a careful and often elaborate breakdown or classification of recreation activities.

But how easily may recreation activities be substituted one for another? How can "fad" activities be handled? Can leadership or direction be applied to promote "desirable" recreation opportunities or discourage less desirable activities?

Let us accept for this discussion that human actions spring from four (4) basic psychological human wants:

1. Response (approbation)
2. Recognition
3. Security
4. New Experiences

Using the foregoing as a springboard for categorizing recreation activities, let us attempt to describe the kinds of activities that might be attracting to the various hypothetical "men" listed below.

1. RESPONSE/APPROBATION ("Applause-seeking Man")

Characterized by necessity for group or audience observation. Crowd aspect reinforces suggestion of status, peer group, fad and "in" activities.

examples:

water skiing
park dances
motorcycle packs
sun-bathing
ski-bunnies
psychedelic craze
urban rioting

surfers (spectators only)--cf. article in recent TEXAS Magazine (Houston Post)". . . Girls belong on the beach . . . to look at . . . . we don't want them in our way"

inherent characteristics: youth, mobility, resistance to established regulations, rule by sub-culture mores, attracts fringe members, indicates group whose values and standards are not yet fully formed. Harnessing of "group mentality" poses potential threat of violence or vandalism.

2. RECOGNITION/APPREHENSION ("Searching-Man")

Characterized by concern for achievement of knowledge, becoming better educated regarding self, environmental, or meta-physical relationships.

examples:

cultural participant programs
nature study - interpretation
heritage or pioneering concerns
religious connotations
solitude - privacy - meditation
escape
rock-collecting
photography

inherent characteristics: activities in this category are not highly group-related; indeed groups may well inhibit satisfactory participation.

3. SECURITY ("Sedentary-Man")

Characterized by desire for comfort, self-gratification, risk-avoidance. I am uncomfortable with this category, because it might most accurately describe non-participants in recreation activities (i.e.: those who would not voluntarily participate except for family, group, economic, etc. pressures imposed).

examples:

modification of activity by introduction of equipment or facilities to increase convenience or comfort (e.g.: golf carts, tote-goats, sno-cats, camp trailers vs tents, electric utensils and accessories).

inherent characteristics: persons who "submit" to outdoor recreation, feeling . . . "If I must, make it as much on my terms as possible"; "purist experience" of secondary importance.

4. ADVENTURE & COMPETITION ("Hazard-Risking Man")

Characterized by a compulsion for new experiences and by the need to excell or make unique accomplishments; possibly a distorted desire to achieve power (over others, as in a race; or over self, by forcing the self to confront an identified hazard).

examples:

scuba diving
mountain climbing
sky-diving
wilderness (survival) camping
white-water canoeing
racing (auto, plane, boat)
sports

inherent characteristics: groups are of minor importance since even in staged (e.e.: formalized competition) there is still a highly personal dimension. Hence the competition may well be "intra-personal" (several facets of one individual's personality at war--as the conflicting aspects of risk-facing, yet careful preparations of a race driver or sky diver). Personal comforts are sub-ordinated to the point of likely physical damage to the individual.

COMMENT: As valuable as it might be, I question the application of this scheme in a survey of recreation preferences, since the four categories are not mutually exclusive (e.g.: overlapping of nos. 1 and 4 and possible nos. 2 and 4). Competent social scientists are needed here. Nevertheless, I intuitively feel it would be significant in forecasting future demand for recreation to think not only in terms of checklists of current activities, but also in terms of motivational coefficients in a base population.

A NEW NUMBERS GAME

(Reported in "Deteriorations of Work Standards", Harvard Business Review, September - October, 1966).

Result of fourteen years of research by Dr. Clare Graves, Professor of Psychology at Union College, Schenectady, New York.

Basic Premise: (1) Human beings tend to fall into one of seven distinct levels of existence; although overlapping of levels exists, one level is dominant. (2) A human may change levels, but always in sequence. (3) Each level is a state of psychological equilibrium, and a person will not change levels, until he has solved the problems existing at his base level.

Number-Order Framework:

Autistic (Level 1)	-comparable to new born baby. Primary concern with problems of sustenance, illness, reproduction, disputes; fantasy confused with reality; survival of no concern. Basic motivation--physiological
Animistic (Level 2)	-primarily concerned with survival. Superstitious, governed by rules; respond to threat of force. Basic motivation--survival
Ordered (Level 3)	-strong sense of being organized definite black-white opinions. Accepts imposition of controls, but upset by unknowns. Basic motivation--order
Materialistic (Level 4)	-value system built around search for power. Good boss for 3's; competition for authority. Basic motivation--mastery
Sociocentric (Level 5)	-enamoured with group decision-making. Team player, group thinker; determined not to rock the boat; has solved survival and power needs. Basic motivation--belonging

Personalistic (Level 6)-motivated by self-esteem. Wants to realize full potential, resents being told how to do a job; is aggressively-individualistic; quietly confident of his own ability.
Basic motivation--self-esteem

Apprehending (Level 7) -has individualistic-pacifistic nature. Has conquered the problems of self-esteem; is driven by the desire to acquire and disseminate information; requires acceptance and support; will not subordinate his desires to those of the organization.
Basic motivation--information

Apparent Relationships:

Level 7 seems to have marked similarities to Level 1, on higher plane.

Odd numbers--seem to try to adjust to their environment.

Even numbers--seem to be trying to change their environment. Some persons are "closed", not predisposed to change and grow. Change from one level to another is not automatic; three prerequisites to change:

(1) The person must solve the problems that exist at his level.

(2) Disturbance is necessary, either externally or internally caused.

(3) The person must find the means of avoiding the conditions that caused the disturbance.

Implications:

May be basis for new system of ethics.

May have application in international and cross-cultural dealings (i.e.: on societal level rather than personal level).

Does this mean the future will witness an obligation to raise people's behavioral level?

OUTDOOR RECREATION-SOME HUMAN RESOURCE: CONSIDERATION ON A LAND RESOURCE BASE

by
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Why do people recreate? A sidestepping answer could be: "In today's society, the public has the time and the money. But why do some people get their kicks by being destructive while others get theirs by building or conserving? Again we don't know. Nor do we know why some folks like to go to the mountains while others go to the beach when either is equally available.

And what does recreation do for you? When you and I go on a 5-day hunting trip, do we come back refreshed in mind, in body, in spirit? Or do we just come back "pooped"? Or both? Does recreation reduce crime? Does it improve physical and mental health? Again we don't know. Gans[1] pointed out in an ORRRC Study that "...there have been no reliable empirical studies of the relationship between outdoor recreation, mental health, and mental illness." In fact, a lot of confusion exists. A study[2] of 23,000 boys and girls "in Chicago revealed that delinquents spent more time in recreational projects than others." In contrast, William Menninger[3] points out that the healthy, well-adjusted person recreates much more, and more intensively, than the ill or maladjusted person. He points out, however, that because an individual has a hobby it cannot be interpreted to mean that it necessarily keeps him well. And he offers no evidence that recreation makes the ill well.

Several months ago I met Dr. Elton McNeil, Professor of Psychology at the University of Michigan. McNeil is a well-known expert on problems of juvenile delinquency. He lives on the outskirts of Ann Arbor. In casual conversation he remarked as to how much he enjoyed taking his own kids on a hike. Having this rare opportunity to be in his presence, I bored in and asked him where did he take his kids and what did they do. He replied, "We walk straight down town. I hate this ---- ---- woods." Suffice to say we are still searching for what the woods and recreation do for people, but whether recreation is good for people or just fun, these people are our customers and it's our task to make them welcome. Fortunately, we are beginning to learn a few things about their interests and behavior when they do go to the woods.

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[1] Gans, Herbert J. Outdoor recreation and mental health. ORRRC Study Report 22. Trends in American Living and Outdoor Recreation: 233-242, 1962.

[2] Kaplan, Max Leisure in America, p. 281, Wiley, 1960.

[3] Menninger, William C. Recreation and Mental Health, Recreation, November, 1948.

First of all, let's quit standardizing and classifying our recreation visitors all in one category--*people*. Then make such blanket statements such as "*People* like to do this." "*People* want privacy." "*People* want lots of room." Or because you like something, decide that *all people* like it. With this kind of thinking you and I have built standard facilities, standard campgrounds with standard spacings and standard designs--and this may not be the way to do it.

Campers come in many varieties. Some prefer to be surrounded by home conveniences and the society and security of other people. Others pack their equipment across miles of rugged country in search of solitude and the experience of roughing it in truly wild surroundings. Camping tastes come in all shades between these extremes, and no one type of campground can fill the needs of all campers. Alan Wagar suggests and described seven types of campgrounds to meet varying needs--from central camps with many of the comforts of home to small back country camps accessible only by hiking or horseback with minimum improvements to provide safe water and adequate sanitation.

Variation in design and layout within a campground may also be desirable to protect areas from deterioration and to satisfy both gregarious campers and those seeking privacy. We found in an Oregon study, 27 percent of the single family campsites in use were occupied by two or more families, even though there were empty single units available. Again, in California, Bury found one-fourth of the sites occupied by more than one family, even though roads and spur barriers were designed for one car. Frequently, visitors would uproot sod and shrubs as they dragged a picnic table from a nearby site to create their own two-family site and fulfill its needs.

We must keep in mind, too, that most of our recreation visitors are urbanites. They are used to being near other people and many of them are uneasy when they are not. Shafer found in a Pennsylvania study that two-thirds of the campers wanted to be within 50 to 100 feet of other campers. Less than one-third wanted to be as much as 250 to 400 feet from other campers. In fact, a small but significant number wanted campsites 10 to 15 feet apart. In this study he found that several campsites, which were very close to a major highway, were almost always occupied while sites closer to the river, and in our opinion much nicer, were vacant. To us fearless foresters this seemed strange, so we inquired. A frequent answer was "We like the peaceful sound of the trucks going by."

I'm sure you can cite similar stories and numerous instances that demonstrate that your preferences and understanding of the out-of-doors are different than those of many recreation visitors. On a camping trip with my family, we came to an unfamiliar National Forest in eastern Washington. I stopped at the Forest Supervisor's office and asked him to route us to a nice campground. This was easy--one forester communicating with another. He didn't need to ask. He knew what I wanted, gave me a map, showed me how to get to Lake Leo and told me we would probably find no one at the campground. He was almost right. We arrived about 4:00 p.m. There was one family camped near the entrance. Knowing they wanted their privacy, we selected a site at the far end of the campground. We were still unpacking the car when these folks paid us a visit; told us how happy they were to see us; that they were afraid they were going to be alone in the campground and had already started pulling up stakes to move to a motel when we arrived. They not only stayed the night, they moved to the site next to ours.

My point here is that we, who have spent years of our lives outdoors, must remember our understanding and our interests often vary with those of our visitors.

Studies in several parts of the country in addition to showing that most recreationists come from nearby cities, most of them do not rough it for long--even wilderness visitors. A study of wilderness visitors in Oregon showed that 91 percent of the visitors were Oregonians who stayed just for the day, then returned to their homes less than 100 miles away. Similarly, we found that many visitors to Minnesota's Boundary Waters Canoe Area stay in nearby motels and camps, then enter the area for a day of sightseeing and fishing. This characteristic--that many of our urbanized citizens are accustomed to and want modern conveniences--was also found in a study of campers by Tocher and Kearns in Utah. They found that most tent campers would camp for 1 or 2 days, then spend the next night in a motel to enjoy clean white sheets and a hot bath--and, of course, this is something most outdoor visitors can afford. Studies of the socio-economic characteristics of family campers in three sections of the country, show that most of these visitors are from the middle and upper-middle income brackets. Educational levels are high. Most often they are from professional, managerial, and skilled labor occupational categories. The studies further showed they are interested in, but often confused about, resources and their management.

An analysis was made of the location of 4,100 deer kills during four hunting seasons in North Carolina--and, again, we find the need to learn much more about the recreation users to be able to manage the resource. Important differences were found in the use of forest access. In the steep, rugged mountain areas of western North Carolina, largely populated with rural residents, hunters made exceptionally good use of all portions of the forest, and their kills were uniformly distributed. Hunters in the gentle rolling Piedmont region, on the other hand, coming from nearby cities, stayed close to access and did not penetrate into the more remote sections. Such differences in human characteristics can make great differences in game and land resource management.

A study in Pennsylvania showed that picnickers seldom used tables more than 250 feet from a parking area. Even under extremely crowded conditions, only a few of the tables 300 feet from the cars were used, and tables beyond 400 feet were not used at all. The visitors would spread a blanket between two occupied tables near the parking strip rather than walk the relatively short distance to an empty table. Of course, this means that some parts of the recreation areas are heavily worn while the remainder are underused. It further means that recreation planners must reconsider layout and must seek ways to encourage picnickers to want to walk a few extra yards.

In the Boundary Waters Canoe Area, Lucas found that canoeists apparently don't mind sharing the lakes with many other canoeists, but they object to motorboats; even one is considered a violation of the pristine surroundings. This gives us an important insight into this thing we glibly call "carrying capacity". The recreation ceiling or limit to an area may more often be social rather than physical.

There are some further aspects of recreation behavior that we should consider--some obvious things most of us know but often disregard. Campers and other visitors tend to segregate themselves into specific activity groups such as fishing, nature study, swimming, or water skiing. Often the requirements of one group are incompatible with those of another. Unplanned or forced intrusion of one activity on another can alter the complexion of use, the demands on the site, and levels of satisfaction. Also, it can often create antagonism toward the administrator. The nature study camper usually wants wide spacing and tranquility. The water skiers seem to like lots of company near their camp (provided the company is that of fellow skiers) and this group is quite apt to complain that the camp's boat launching facilities are inadequate. On the other hand, the swimmers, the fishing group, and the nature study group think that large boats and water skiing should be prohibited because they can no longer enjoy the fishing, swimming, and quiet that once prevailed. And the poor forest land manager who has provided a standard campground to serve all of these groups is still looking for a friend.

Seldom are campgrounds specifically planned for the activities to which they were host. In addition to the seven varieties of campgrounds described by Wagar, we need still another dimension. Bill Burch suggests designing campgrounds to meet specialized needs, publicizing this specialization, and meeting the various needs of diverse segments of the public by allocating the different campground types on a regional basis. Carrying out such an arrangement won't be easy, but as more and more of the States are moving toward county and statewide planning, we can broaden our planning from the site to the region. Some serious thought and study in this area should pay big dividends.

Now, let me wind up here with sort of a potpourri, all related to people and their use of the out-of-doors. First, I would like to spend a moment on the task of measuring use and keeping track of what is going on. As most of you know, the art of counting visitors has been crude, and management has suffered. In recent years, using pneumatic traffic counters, a double sampling system has been developed. By using relatively simple regression techniques, axle counts can be accurately related to type of recreation use, the number of visitors, average party size, and peaks in use.

Related to all this, of course, is the sizable task of inventory. Not only how much use is taking place where, when, and how long, but what are the impacts of this use upon facilities and sites? These questions have lead to the development of a data gathering and management system, portions of which can be used by a whole Federal Agency or an individual State park. The system, called RIM (Recreation Information Management) is a computer-oriented approach to the accumulation, storage manipulation, comparison, retrieval, and display of information about people, places, and things over periods of time. The System can cope with information about places--the land and water resource--in terms of acres, sites, parks, counties, States, Ranger Districts, National Parks, or inter-state regions. It copes with information about people--your customers who visit, inhabit, rent, view, harvest, and just generally enjoy the benefits of the places. The system copes with information about things--things like trees and shrubs that grow on the land, and their condition--and things like improvements and investments that were added to the land to promote beneficial use of places by people. The system expresses all of these factors in terms of time to show pertinent relationships--past, present, and future--between the people, the places, and the things. This information is stored until it is needed, and then the system produces an output designed to relieve the manager from data manipulation chores and free him for the more important job of using information. The system is still undergoing refinement, but the beautiful thing is this--it works.

Next, I would like to talk about the lands and landscapes your visitors drive through and look upon.

From time to time you and I are asked what will be the impacts of all this recreation development upon other resource needs and uses. The answer in the developments themselves will have very little impact. The number of acres taken for campground, picnic grounds, ski slopes and so on within substantial acreages of forest and related wildland are relatively few. Of much greater importance than the acreage the recreation visitor stands on or sleeps upon is the vast acreage he looks upon--what Bob Twiss calls the visual resource.

Landscape management of the macrosite--the broad scenic vista--has, of course, for a good many years been a prime item in the resource manager's thinking and planning. To a great extent, however, for those areas visited or seen by many visitors, our actions have been defensive--to refrain from or to drastically limit any kind of management--yet knowing full well the forest we are setting aside is a dynamic, living, and often overmature plant community.

The problem here, as always, is to meet the needs of man and those of the land. Fortunately, the resource manager and the landscape architect have much in common. Both are seeking a smoothly functioning environment. Both recognize that the land's "hard" values, whether a National Park or commercial timberland, must take into account the land's visual products.

Vague terms such as "beauty" and "harmony" must be given specific meaning and substance through measurable criteria that land managers can apply, using such factors as visibility, angle of view, distance, color contrast, and comparative form. These are terms strange to most of us in resource management. But today, our planning and actions call for the skills of the artist and the architect to explain new concepts and help us use them. Our core task here is to determine the best ways to portray the visual landscape to the forest visitor--and avoid horrible examples such as this one.

Up to now, I have been talking largely about the needs and wants and interests of outdoor recreation visitors and what is being done to meet these needs. Now, in closing, I would like to reverse the process and spend a few moments on what I consider our most important task--and it's a real challenge--that of gaining better understanding and much more cooperation from the visitors themselves. In short, to get their assistance in your task of resource management.

We can start with several premises:

1. There are, unfortunately, some slobs in almost every population, but most recreation visitors are fine people. As we try to understand their interests, if they, in turn, can better understand ours, if they can better understand resource processes and that they themselves relate to and have a stake in the environment, our management problems will be lessened and their recreation experiences will be enhanced.

2. We are going to be visited by more and more people, most of them urbanites who know less and less about the resource.

3. Most of these people will be well educated and able to pay for their recreational opportunities.

4. Many of your visitors have a sincere interest in resources and their management, but often they have little understanding of the processes involved in plant-soil-moisture relations (Let me hasten to say here that we can't expect most of our visitors to be ecologists, but you and I can teach them a little ecology.).

5. Most visitors to a badly worn recreation site have no idea of its condition, and they are even less aware that their many footsteps, trampling, and compaction are contributing to its depletion.

These five premises add up to this. You and I are going to have to assume a new leadership task. We must find ways to obtain more cooperation from the public in the care of extensively used and intensively used recreation sites and their clean-up. At present, you and I are trying to carry this burden alone; we are spending enormous sums of public funds; and we aren't getting the job done. This year (FY-1968) the Forest Service alone is spending $21 million of a $34 million recreation budget just for clean-up and maintenance alone, and it isn't enough. Moreover, it never will be until the public realizes outdoor recreation resources are alive, delicate, and fragile. We are literally following these people around with a broom, a dust-pan, a shovel, and a bag of repair tools. If the trend continues, the costs will total more than $1 million during the next 18 years, and more than $3 billion by the year 2000.

We talk about regulating use--limiting the number of recreationists who can use an area at any one given time. I can assure you that when we do, for most sites it will be a guess--a judgment value far less accurate than some of your tries at guessing a lady's age. There is no question that something must be done, but we can't deny regulation of use is a negative approach. Even though regulation is an attempt to assure the positive goals of public use and enjoyment, it will deprive many fine citizens of a pleasant recreation experience, and even then it may not work. Life will be a lot easier for us if we develop some positive approaches. Here's a good example--Frankfurt Forest, a 12,000 acre forest on the edge of Frankfurt, Germany. There, 4000 acres are comfortably accepting one-tenth as many visits as America's entire National Forest System of 186 million acres. Frankfurt Forest is in excellent condition; some of our American sites are crying for relief. Why? Different sites physically? Differences in our culture? This may be a partial explanation but not all of it. Frankfurt Forest has many graveled paths. It has no "Keep off the grass" or "Stay out of the woods" signs. It needs none. Its many visitors know that trampling or pocket knives can destroy both the plant and the setting--a setting that they love and enjoy. We can sigh and tell ourselves that these attitudes took centuries to develop, but we can also be heartened by recent events at Frankfurt.

In 1949, Frankfurt Forest received 5-1/2 million visits, and it cost the city $30,000 to clean up and to repair damages. This disturbed the city's outdoor recreation society, which has among its objectives the betterment of Frankfurt Forest. These citizens, in effect, asked themselves and other fellow citizens' groups--not once but over a span of several years at picnics, church suppers, union meetings, and similar gatherings--"What are we? Are we a bunch of slobs? Or are we good citizens? Do we want to see our tax money used to clean up the damages we make after our carelessness and thoughtlessness? Or do we want to see our dollars used to make Frankfurt Forest even more lovely?" The result: Over the 16-year period from 1949 to 1965, visits tripled from 5-1/2 million to nearly 15 million, but maintenance and cleanup costs dropped from $30,000 to $2,250. That's from $5 per thousand visitors to 15 cents per thousand. I am not suggesting we can attain those costs, but I am suggesting that with care and understanding many people can use an area without destroying it.

Each year our number of visitors increase, and we can expect this to continue. We are going to have to find, develop, and feature more places for these people to visit. As we do so, we know that when the places are less spectacular, the need for interpretation becomes greater. But with interpretation and a little understanding, or even a little curiosity, almost any plot of land becomes interesting and exciting.

If you will forgive a personal reference: When I was a kid growing up in Denver I could watch an ant hill in a weed-infested vacant lot near my home for hours. My Dad explained for me the social structure of the ant colony. With this help, I inserted a piece of window glass vertically down the middle of the hill, then excavated one side and watched the ants' underground activities day after day. Also in this vacant lot, when young weed seedlings emerged from the soil, somewhat fiendishly I would push them back down into the soft mud, but they didn't stay down for long. For me, that vacant lot was important. It was my wilderness, and it gave me a little better understanding of this dynamic ecosystem we are all a part of.

Mount Rainier is exciting by itself, but with understanding and interpretation, the restoration and management of an otherwise uninteresting woods or sagebrush range can become equally exciting. Keep in mind that the average citizen looks upon a park or a forest as an inanimate, static feature of the landscape. But he can see it as a living resource, when you and I improve our communication with him. And we can do it. It's exciting to watch the eager expressions on recreation visitors' faces when someone is explaining the process of plant succession then points to examples right before their eyes. Reaching our many visitors won't be easy and we don't yet have all the techniques, but it's up to us to develop them, to use them, and recruit all the help on the side that we can.

We can look at this and all of the related people impacts as a problem, or we can look at it as an opportunity. Speaking to you as a resource man, I think we have a magnificent opportunity. We need only have an opportunity to welcome many more people into what we might call "our part of America", we have an opportunity to make them part of it because, really, they always have been.

We aren't managing forests for the trees, nor parks for the bears--we are managing the trees, the parks, and the bears for people. So let's widen our circle and welcome these people into the fold. Let's be positive about it. Let's lead the way rather than follow. Let's determine and exploit those recreation uses most compatible to the resource and its other resource uses. Let's use our imagination and let's be sure we recognize the differences between our backgrounds and those of most of the public. Let's explain the ecological relationship between the coyote, the range, and the jack rabbit. Explain why some wildlife species are near extinction. We can not only make these topics interesting, we can build a better appreciation of your tasks and objectives. Let's describe (and also maintain) the kind of habitat where the traveler would be more likely to see a deer, an antelope, or a turkey. For many visitors, the sight of an animal far surpasses the sight of a lofty mountain. Keep in mind that a few years ago we killed prairie dogs by the million; today many tourists are now driving 20 miles and more out of their way to see a prairie dog town. Agree that the loco weed is pretty; explain that it is poisonous. Explain why some deer have antlers and some do not. If your park has severe erosion problems or an insect epidemic, are you going to combat them? Sure! But also, explain them. Tell your story. You may want to hire professional information specialists to help. But let's be sure to make the visitor part of your story. Let's make these wildland forests and parks--the trees, the livestock, and the game upon them--not only a sight for the visitor to behold but a resource to understand for what it is--a real asset to the American landscape, and an integral part of our economy and society--both his, and yours, and mine.

PLANNING METHODS AND TECHNIQUES

by

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It will generally outline how the planning process proceeds. I would like to bring the focus down from the plane Dr. Suggitt established in his presentation to what we call the "tools of master planning". This is the proper sequence. You must first do the kind of planning that Dr. Suggitt spoke of, then you come into the more specific type of work which I will talk about. Mr. Brooks will key in on the planning process using an actual area for an example.

Parks are not a new way to use land. They have in one way or another been an accepted use of land ever since men started living together in towns and cities. However, planning for public parks did not really come to the forefront until the advent of the industrial revolution. Admittedly, the very wealthy and the nobility through history have provided for themselves and friends large estates, hunting preserves and, you might say, general pleasuring grounds. The rank and file of the citizenry, however, were excluded. When people started congregating to live in hamlets, towns and cities, provision was made for simple open space usually in the form of a village green or square or plaza where they could come together for special events and simply to rest and gossip.

This was a form of city planning. But actually there was little or no public park planning involved.

Planning is not a simple unified process with principles equally applicable to any given problem. Objectives of planning vary from each park study undertaken. In most planning agencies, the master plan is the principal reporting product of the planning process. Master plans are management documents that in graphics and in words guide the use, development, interpretation, preservation, and the general administration of each particular park existing, or proposed. Master plans are the control documents to guide and direct the preparation of more detailed action plans for the implementation of park management and development.

The action plans, I believe, are the ones that Dr. Suggitt referred to in his presentation. A master plan is worth nothing until there is an implementation of it through another process such as the action plan. This must be done.

For new areas, the master plan provides a firm base for estimating the costs of land, the cost of the development and operation, and for presentation to the legislative bodies. In our system of government, every public park and recreation agency has some type of a legislative body it reports to The Federal Government has the United States Congress, the States have the State legislators, cities have city councils, and counties have county commissioners. All plans that are going to receive any kind of implementation must have this legislative backing. When doing a plan, we must keep in mind that you are dealing with a product for people. Many agencies, and the National Park Service can be classed as one of them, sometimes forget that the reason for parks and recreation is for the people. Other things become paramount in your mind, and the man who is really going to use the area you are developing is often forgotten. We sometimes get too much embroiled in the scientific research which is necessary for planning, but this should not be to the exclusion of people. People must be kept in mind for any kind of plan you do in parks and recreation.

Plans, whether they are master plans or not, can be devised in two ways, and there are various variations of these two ways. As happens so many times in the United States, and particularly in the last ten years, the construction envisioned for a given area is forced upon a site whether it has any relation in any way to the resources that appear there. Many of the development plans for subdivisions, commercial areas, highways and what have you, fit into this category. They do not refer to their surroundings either culturally or visually. Plans of this sort can be a great challenge to anyone in the planning field. However, it is a challenge that most people who are in planning prefer not to deal with. Many times this challenge is normally one of meeting the functional requirements of the plan as developed by the patron--what he wants, and the emphasis is on the strict architecture of the building, or the construction of how pretty it may look as a single entity, but not as it fits its surroundings for the resource it is occupying.

The other extreme is resource planning where construction is subservient to, or serves for the use, of the resource. This is the type of planning which most land managing agencies, whether they are Federal or State or local, concern themselves. This is resource base planning, and to a large extent, the quality of this planning must be founded upon the knowledge of the resources and the various factors effecting their use. We call this "basic information". You must have this vital basic information before you proceed with a plan. The resource planner has no better tool than this basic data material provided he knows how to use it once he has collected it.

I am going to list what I believe are the planners' principal tools. A tool is something that serves as a means to an end which, of course, could apply to the completed plan as well as the tools used to construct it. First, I think the most important tool, is a knowledge of the purpose or the objective of the plan. What seems obvious may not always be so and it may be necessary to formulate and agree upon the purpose before any other steps can be taken. All parks are not alike, they vary in character. The purpose of some parks limit its development and limit its use. To attempt greater development and increase visitor use in some areas, for example, would destroy the very values for which the area is noted--and would thus deny to all visitors an unique experience which perhaps only that particular park could provide. Therefore, purpose is one of our basic benchmarks for master planning, and we must work conscientiously to make our statement of purpose fit the park.

In formulating purpose, there are two other extremely important tools: legal instruments and policy. Every park, whether it is Federal, State or a local one, is usually created either by an Act of Congress, a Presidential Proclamation, a Secretarial Order, a cooperative agreement with another agency, or by an act of the State legislature, or city council. By any of these methods, the purpose may be clearly specified and thus become our touchstone for proceeding.

Many of the laws creating parks contain elements of "political planning", often surprisingly imaginative and progressive. Political planning could go both ways and you have to be flexible. From the planning standpoint, you can develop the best plan possible for a given area; however, as I said earlier, a plan has to be implemented. And the people who implement it are your political bodies. They all have views, and some of them may be in the "screwball" category. They all have some personal interest somewhere along the line and their interests may be cranked into your plan after you have developed what you feel is the ultimate plan. Most of these compromises come in after "the plan" is finished. Nevertheless, you have to stand for principles, and you have to keep in mind you are planning an area for people to use. This makes the political aspect very important because elected officials normally have the pulse of the public. Some of their ideas may sound very "screwy", but normally there is a good reason. As you get down to real "gut politics" where it is "pat me and I'll pat you", you have to make the best judgment possible to make sure the plan recognizes the resources and provides for the good of all the people. I want to emphasize the political aspect because planning will go nowhere unless you have this support.

A thorough knowledge of policy is also an indispensable tool to the planner. A good planner not only applies it, but he actually helps create policy through his planning. Of course, there is the other side of the coin. Poor planning also affects policy but not intentionally and seldom with happy results.

Another tool that may be important to the planner when working on an existing park is the history of management. Planning is not just for new areas. It is a continuing process, and you must continue to reanalyze and reevaluate existing parks. If it is possible, you should research what the original people who set up the park had in mind. If it has been in existence for 30 years, for example, how has the park, management-wise, evolved? The first plan may not have recognized problems that came up when the park superintendent gets on the ground, who is responsible for management and operation, and he discovers there is something left out of the plan or a policy in the plan not allowing him the necessary flexibility to carry out his job...then, he calls for the reanalysis. This history is an important thing to be knowledgeable of before you go too far on any replanning of an existing area.

Knowing, then, the purpose and objectives of what you are planning, derived from the laws, the legal and the quasi-legal documents; the next important elements are written policy and historical tradition needed to guide a plan. They help a planner from being drawn into the great controversies of which no life preserver can protect him unless he is fully knowledgeable and can make judgments or debate the history and the laws and the policy that are involved.

Planning for a resource base use consistent with resource perpetuation is the first job to be done, and it is very diverse. In one place you need to preserve a crumbling adobe pueblo, for instance, in the southwest. In another area, the resource may be an alpine flora area where grazing animals, visitor's feet, or acquisitive hands would ruin it.

In another area, we must institute man-made checks to replace the natural checks we have disrupted. In all areas, you must assure ourselves that the constructions we create for visitor use are not destructive of the resource to be used. These are touchy problems and require a full knowledge of the resources and the many disciplines of planning that are required.

Now, what are some of the more specific tools that can help us gain the knowledge we need? There are many of them although I will only mention a few, treating them in general concept, and use examples known to me where they have proved to be of real value.

You need contour maps, aerial photographs, and basic resource studies, if it is possible to acquire them, since some may have been done in the past. If you do not have these basic resource studies, you should make plans to have them done. In some cases, you will need research studies. In all cases, you need the broad comprehensive plan of an entire area. Call it an "environment, region, river basin"...this type of planning is needed before you start the specific plan of an individual area. This is one reason why the Park Service is very pleased because through the Land and Water Conservation Fund Act, each State is required to have a State comprehensive outdoor recreation plan. Some of these are excellent, some are simply an inventory, but at least they are some type of State plans. Before the Park Service or any local agency or State agency undertakes a specific planning project, they need to study the State plan and analyze it and find out what information is available. In the past, we haven't had these State plans except for some of the States which have done this on their own. Now the States are really preparing State plans because, if they don't, they do not get any money from the Land and Water Conservation Fund.

For large areas, contour maps, as supplied by the U.S. Geological Survey, the Army Map Service, the Coast and Geodetic Survey, and others, are indispensable. They tell you much more than just contours. You can locate swamps, marshes, lagoons, dunes, cliffs, etc. Depending on your ability at map reading, or your background knowledge, you can read into many of these contour maps things you need to know concerning vegetation, soils and this type of basic material.

Aerial photographs really came into their own during World War II through aerial interpretation. It is a natural companion to the contour map. It supplies all the "lacks" of a contour map. Elevations are not so easily apprehended except for the use of stereoscopic devices. Innumerable other resource factors are apparent in conjunction with the contour maps, and sufficient field study. Aerial photos, if you have the proper scale, are an extremely important tool for the planner. Vegetative types can be determined, age characteristics of the forest types understood generally, cutover areas are identified, and large specimens of trees can be located. One lake may seem to have sandy shores while another has only a bog mat extending into deeper water. Beaver dams show up. Evidence of the past works of man, even prehistoric man in some cases, may be apparent. Also the geological elements which are needed in planning many times are visible.

A park road may skirt, but provide pedestrian access to a choice stand of trees. It may pass alternately through different forest types and along waterways rather than simply bisecting the landscape. A bog lake may become the locus of a carefully designed nature trail, while the one with the sandy shores provides swimming for a nearby campground. Much of this planning can be done right on that aerial photo. It shows what the resource is and then the planner can determine how you can use it, what he wants to save, and what he wants to protect. People may also supply most of this information, but your aerial photo records it and a planner can go back to it time and time again. He can make a field trip, take notes and pictures, but this aerial photo gives the planner a tool to go back to for reanalyzing and reviewing, and it is a great timesaver.

Many of the areas of the United States, having valuable park and recreation values, have been studied in some detail and there are good reports and studies available, if you know where to look for them. Many libraries, and particularly university libraries, are a great source of material on this subject. One needs only to search out information on a given area. Thus, the planner does have considerable information available to him, and it is important not to duplicate work or spend time starting research or basic information gathering from scratch. If something recent has been done in connection with an ecological study of a certain area, and if it is done by a recognized and acknowledged person in the field, there is no sense to duplicate the same work. You should check when studies were done and if it is not recent enough, and the ecology changes, then you may have to do the work over.

Also, your library research can relate to the economic factors you need to check into; particularly for proposed parks it is a good source for your demographic data, climate, and legal documents dealing with the enabling legislation and things of this nature. It can all be done through library research.

In spite of the search for the available literature, significant voids may occur in the resource picture. Forest economics may be a planning consideration, so forest-type study may be necessary. Broader economic problems may necessitate an economic research study into the intricacies of the local economy affected by a proposed park. In a reservoir area, a soil study will assist in location of facilities. At the Delaware Water Gap National Recreation Area, the Park Service prepared a master plan and as a result of resource study we were able to place a proposed beach in an area of extensive sand deposits. In another case, sand deposits below the reservoir level can be stock-piled before the reservoir is filled for later beach use. Much of this work can be done by the use of aerial photos. And, similarly, shallow waters with the silt loam soils, if given the proper management, can become very important for waterfowl feeding areas.

Special research projects are often needed in historical areas so that planning will not destroy hidden values. At the Minuteman National Historical Park in Massachusetts, long-term research will allow the Park Service to recreate a colonial landscape with a reasonable assurance the work would be authentic. At the present time, archeological research is unearthing the cobblestone causeway leading to the North Bridge where the minuteman "fired the shot heard around the world". This is time-consuming, it is expensive, but if you are dealing with a park or a recreation area that has the significance of history or prehistory, then you must make this effort or you may ruin the resource for which the area was established.

Many regional planning studies are available to us today which help us place a park in proper perspective to its surroundings. A knowledge of the interrelationships of all kinds of resource use is imperative to the planner. While I am speaking of tools of planning rather than proposals, I think it is apparent that resource planners must play an increasingly important role in defining the goals of regional planning, of interrelated environments, and of human ecology.

A good example of progress the Park Service is making in this direction is the combined master plan now under preparation for Grand Teton National Park and Yellowstone National Park. There is one master plan for both parks. They not only take in consideration the total ecological complex of both parks, but also their interrelationship with the surrounding national forests and with State and local recreational resources within the region. Out of this plan, it is the Park Service's hope to achieve the highest and best use of the entire region's land and its resources. Not just Yellowstone, not just Teton...we can no longer afford to consider national parks as protected and independent encalves. All future planning must take into consideration the park's place in the total environment with a real conscious concern for the human as well as the natural resources. We cannot spend huge amounts of taxpayers money on a scenic riverway, for instance, and then sit blithly by while communities, and industry and agriculture pollute the stream, which is public property. Nor can various public and private land-managing agencies go blithly on their way ignoring the work of each other and the various demands on land uses. We are in the age of synthesis and we must arm ourselves with the knowledge and the aptitudes to plan for this age. We talk about coordinated planning and we talk about working with each other, and this is easier said than done. It has been going on for years. Many times a joint plan, where two, three or more agencies work together all the way, can be developed. And then it comes time to implement the plan. This is where "the chips are laid down" and the plan and planner are "called". You sometimes have bureau jealousies or political problems, and because of this many good plans are put on the shelf, even though they were produced by coordinated efforts and the planners did a good job. The implementers may feel that the timing is not right to carry out the plan. Somebody is always wanting something from somebody else. Sometimes, one of the agencies that is involved has already a personal interest in the area, and considers another agency as an outsider coming in trying to take over the project.

I have high hopes for some things that are going on right now. Recently, the State of New York, through Mr. Laurance Rockefeller who is Chairman of the Council of State Parks in New York, released a proposed report on the existing Adirondacks Forest Preserve for which the State has been acquiring land for many years. New York has purchased about 1.7 million acres of land already. It is an excellent project. Now, it seems like in the east, where you have great hordes of people, that this is something the State of New York may not be able to handle by themselves. So a report was prepared with a proposal for the area to become a national park. This area is very fine. Great portions of it would undoubtedly meet the criteria for a national park. However, it is a very large area and has been used over the years for hunting, timbering, mining, private homes, group camps, private camps...it has everything in the recreation field. But, these are all problem uses when you are considering a national park. Perhaps, since the Federal Government has no personal involvement right now, this would be a good time for several Federal and State agencies to get together and attack this problem together, and come up with a joint plan that may mean something. It is not a North Cascades, nor a Redwood National Park, where the Forest Service is already administering much of the land. The Park Service does not have any vested interests; so we have no axes to grind. I don't know how it is going to be handled, but this is a case coming up where, if the planner can get his "oar" in there right and convince the implementers that we can do a coordinated plan, I'm all for it. It may work.

Transportation logistics must be thoroughly understood before we plan. You have to know where the traffic is coming from. Is its destination a park? Or is it a simply "passing through"? What new interstate highways or other roads are planned? How will they affect the flow of traffic to the park? When a super highway dumps the outflow from New York City, St. Louis, or Los Angeles, or any of the cities, into a park, how do you cope with it? The example is given concretely at the end of Dr. Suggitt's presentation. This is exactly the thing you have to come to grips with. Obviously, you must measure the magnitude of the problem. This means basic studies by yourself, and by others of the traffic flow patterns--both existing and potential.

The comprehension that comes with seeing is indispensable to the planner. The eye sees but the mind processes vision through the mental apparatus giving special meaning to what we see. Thus, a good planner not only sees the features of an area, he also begins to fashion a new reality out of what he sees. This ability to see below the surface conditions to the realm of reasonable possibility must be seen as an essential tool of the planner.

I wish to stress the importance of actual field work in connection with the planning process. The park or recreation planner must become intimately knowledgeable of the resources he is dealing with. Maps can show him where the tree cover is, but he must find out for himself the quality and the physical condition of this tree cover. He must determine for sure if water is involved in the park area, whether it is polluted, the extent of the pollution, and the source of the pollution; the latter particularly important in order to rectify any adverse condition to the natural resource. The planner must develop the ability of knowing the people who will use the park. Of course, people come from all over the United States to use many of the parks; nevertheless, those people living in the general area are vitally important to the success of any park or recreation project.

The pattern of visitor use in a park depends on the resources of the park, the visitor's knowledge of them, and the facilities the administering agency provides for their use. Consequently, an existing pattern of use may not be what it should or could be because of the degree to which these three factors operate. Before we change, supplement, or retrench a use pattern, we had best know everything we can about it. How many annual visits do we have? What time of year, week or day does visitation peak and for what reason? What is the range of visitor use and what are limiting factor on this use? What is the effect of use on the resources? If use affects a resource adversely, what is the specific nature of the misuse? Are there resources that are not being used and, if so, why not? How can they be used?

The questions asked about visitor use bring us to the point where we begin wielding another important tool, one which every planner must familiarize himself, and that is analysis.

Analysis takes all the information accured to this point, and subjugates it to search, projection, rearrangement, and statistical comparison to bring to light the problems, not independently, one at a time, but in unison so that unified solutions can be formulated. Problems seen in isolation may change complexion when viewed in relation to the total problem of resource conservation and use. If the statement of the problem changes, it must ordinarily allow that the solution will change.

I have covered the broad and general tools of the planning process, and I would like to suggest there are other tools such as pen and pencil that are equally important in conveying the content of our plan. A plan must usually be presented to someone else for approval. This means that it must be understood. This is where you get rid of all the planning jargon and gobbledgook, and say in plan English exactly what you mean. Its content must be arranged to facilitate understanding, its narrative must be clear and direct, its graphics must present ideas in other than just cryptic form. Let's not forget that these "other" people are the decision-makers. They are in charge whether it is through the political process or administrative, and no plan or park proposal is worth anything unless there is assurance it will be implemented within a reasonable length of time. The political entity is the implementer. The plans must be "sold" and the people must be "sold" on the plan and all it represents.

The planner and the people in the planning field need to acquire the attributes of competence, confidence and persuasion to sell a plan. This should not be hard if you use the proper tools along the way to develop this plan and have a quality product.

Mr. Brooks will get into some of the specifics I alluded to.

PLANNING PHILOSOPHIES, CONCEPTS AND PRINCIPLES

by

Dr. Frank W. Suggitt
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Dr. Frank W. Suggitt, a native of Canada, graduated from Michigan State University with a BS degree in Soil Classification and Land Use Planning. His MS degree and Doctorate in Public Administration came in 1952 and 1956 respectively at Harvard University. From 1952 to 1959 he was Head of the unique Department of Resource Development at Michigan State University. The department included community development, land use planning, parks and recreation, tourist and resort services, soil and water conservation, conservation education, and watershed management. He was in charge of a six-state Public Affairs Education program from 1959 to 1961, and he has done and administered extension work and private consulting.

The planning principles, procedures and processes are pretty much standard regardless of the subject matter or the substantive of interest involved. The first and most difficult of the planning steps is a definition of objectives. Where are you going? Where do you want to go? Where should you go? Where are you legally committed to go? Ask this question of any federal, state or community in any field, or even of an individual or an entrepreneural unit...it is probably the most difficult step in the planning process. Objectives are the most important thing.

This leads to policy, policy statements both implied and actual. What is this nation's policy toward outdoor recreation? The ORRRC report set a few parameters for this and the Bureau of Outdoor Recreation is attempting to set some more, and each of the federal agencies is trying to set some more. There are various pressure, special interest, and lobby groups...all of them are attempting to set new parameters. And each state has been cranked up to state the outdoor recreation objectives within the state. It is fuzzy, confusing, complicated, and contradictory.

The next major step in any planning process is to find out where you are. Inventory the existing situation. How did we get to be the way we are? This community, this region, this watershed, this recreation area complex or site...how did it come about and where are we going with it?

This leads us then to projection. What are the norms? Is there such a thing as "normal" trends? What are the apparent trends? How can we project these trends into the future? What are the hazards of projection? You have in this Institute, and certainly in your own jobs, been exposed to all the hazards of projection. We then make some sort of evaluations of this basic data. We make some decisions...in community planning, regional planning...it is purely a recommendatory process.

The planning commission of "county Z" or "city X" or "region Y" recommends to the action agencies, to the legislative body that certain things be done. This follows through (hopefully, and sometimes) with an action program.

The important things in the planning process, the important considerations that are too often ignored...we gloss over them. As we go through this process of obtaining inventory information, trying to define our objectives, trying to shoot ahead into the future with projections---and in the process we have already changed the parameters of the problem. By gaining more information, we begin to refine or question our sense of purpose, our sense of policy and our sense of objectives. We get more facts...and discover our initial premises were wrong, so we have to go back and correct our initial premises...and then find out that we need more facts.

We move on into the activation of a planning proposal...we build the reservoir, or the freeway, the shopping center, and the park, or whatever it may be, and immediately we create a new set of circumstances. This requires reassessment of every element in the planning process. The environment just "ain't" what it was before. Talk about ecology, human ecology, biotic ecology, every function and every force of human nature changes that ecological picture. Every influence changes it. In addition, we have so many forces that are beyond our own control, such as political and technological influences. This changes the parameters, changes the ball game, changes the rules, the objectives, the purpose, the procedures; this sets simple things...for example, in this month's Reader's Digest is an article about the electronic home. The conclusionary paragraph is quoting a major appliance dealer in Chicago, who is eagerly looking forward to 1975 because half the things he will be selling, at that time, are not even planned yet at this time. Our technology, according to this particular author and the people he was quoting, is changing that rapidly. He was referring to the whole gamut of home audio-visual equipment, electronic shopping, electronic banking...the things that make it possible for a person never to leave home and still function quite adequately.

This change is the dimensions of demand for recreation. If you can have an 8 x 10 vidio tape of anything under the sun right in your living room, in color, with sound, why should you go to Yosemite or to Niagra Falls, or to Mt. McKinely, or wherever it may be? It is right there and you don't have to fight the traffic. What is the impact of the 500 passenger jet? What is it going to do to travel patterns and to pressures upon resources and people in exotic places? Dr. Gunn will be speaking to you about his experiences in Hawaii and how the whole economy of the Islands shifted when we moved from prop planes to jet planes. They are anticipating another shift when we move from the current jets to the big supersonic jets. All these things change the function and the framework within which we do our planning.

Too many communities, government agencies, and leaders have the feeling that once a plan is done, it's done. I've heard that a thousand times...

"we did a plan back in 1943, or 1959..." or something like that. "It is done and we don't have to do it again..." And yet pratically everything about that community has changed during the interrim.

I want to spend a little time on the semantics of planning, not to confuse you, but to make you to think a little bit more about the language we banter about. The term "master plan" is part of your language. From my personal perspective, I dropped the term "master plan" about 1942 because that was about the time I went into service for Uncle Sam to help counteract a German geographer who was using the term "master plan"... for the "master race"...the dominance of the heartland of the European continent; this was a "master plan". The USSR starting about 1926 used the concept of the "master plan" in the form of five-year plans. The futility of them is that none of them worked, even today. The horror of Hitler's master planning was that it almost worked. Nevertheless, there was a blight on the use of the word "planning" of any kind in America for about ten years after the war. We went through quite a cycle. It is only now becoming fairly respectable, but just be careful how you use it here in east Texas, for it still isn't acceptable in certain provincial areas of the country.

We've come now to talk about "comprehensive planning". This is generally acceptable. A community has got to conduct a comprehensive plan before it is eligible for certain federal aid for water supply, sewerage disposal, highways, Land and Water Conservation Fund, hospitals, and so on. I consider this to be federal "blackmail", "carrot dangling" or whatever you want to call it. But, it urges communities to do what they should have done anyway. I think it is highly commendable. But no two planners can define "comprehensive plan" in the same way. The highway planner thinks of it in one sense, the hospital and land use planner think of it in other senses. The Housing and Urban Development Department has made this term popular because that is what their 701 program extends 2/3 or 3/4 subsidy towards. "Comprehensive planning" means what is says (hopefully). Comprehensive means breadth, all inclusive, all factors included in the formula and functioning within the formula.

At the first part of the week we heard a talk on five things that professional park people, and park agencies need to do and need to be involved in. And one of them was coordinated environmental planning. All I want to say is how wonderful! It isn't exactly a new concept, however, just new words. I had the good or bad experience of growing up in a transition period, but I guess everybody is always in a transition period.

Right at the beginning of the "New Deal", there were many kinds of planning effort on a national scope. There were many kinds of encouragement, and inducement to get states and every kind of a major region such as TVA, MBA, CBA and so on, into the planning act, to get communities into the planning. I grew up in the tail end of that era, an era that from my vantage point started out in 1923, the year the Michigan Land Economics Survey was created. Something had to be done for the towns and counties in the northern part of the state...generally called the "Cutover", "the land nobody wanted". What to do with it? Here was land that was skinned one way or another, from a mining and a forest point of view. The "plow didn't follow the axe". The Michigan legislature in 1923 created the Land Economics Survey which did, from an inventory point of view, get involved in what may be called coordinated environmental planning. They had staffs and actual encampments covering 23 of the northern counties before the depression and no more state funds were available. They had teams of foresters, soil scientists, hydrologists, engineers, economists, botanists, ictheologists, and so on...the whole potful of skills, talents, resources that you would think would be needed to go into such an area and try to come up with some conclusions. One of the conclusions was that 4 1/2 million acres of that land became state property in 1939, through tax delinquency.

During this general period other states were involved, particularly in the Lake States of Minnesota and Wisconsin, New York. During this period the National Resources Planning Board urged and almost had a 100 percent coverage of all the states with state planning agencies. And some real fine efforts were made during this period. The Michigan Planning Manual, by the Michigan Planning Commission was one of the last things the State did in 1943 before the legislature knocked it in the head. Almost every state had a planning commission. The war came along and we lost our trust in national planning, it was now national defense planning, and national mobilization. After the war, those people they couldn't fire in the state planning agencies and who weren't drafted or in war related industries, started working feverishly toward postwar planning, emphasizing public works projects, because the history of every war is that it has been followed by a depression. So we needed to crank up the WPA, the CCC and the PWA and the NYA and so on...to get people on the payroll to do some of these major public works jobs that are going to be needed. There was quite a feverish effort in most of the states during the war, just before we committed ourselves to the war...to crank up these public works type of planning programs.

The war was followed by a "boom", and not a "bust", an unprecedented expansion of demand for consumer goods, and an unprecedented population expansion and all the things that went with it. The states were no longer much interested in planning. They were interested in getting their share of this new industry so those state planning commissions became state industrial development commissions. This happened in Michigan. In staff that was left was transferred to pirating industry from other states. This was critical in some of the war production states like Michigan (Detroit) to get something to supplant the bomb, tank and missle ammunitions business they had during the war. At any rate, this is part of the sequence.

It wasn't until the Housing Act of 1949 that this concept again came back...comprehensive planning, river basin planning, community planning, metropolitan regional planning, and national planning of the TVA type. So we have been through quite a cycle. Comprehensive planning is the popular jargon now. Everybody has got to do it and yet nobody really knows how to do it. How do you relate all of the variables in the formula, one to another? How do you depict the relationship of one to the other? We see new techniques like PPBS...Planning, Programming and Budgeting System. It is an attempt to systematize this whole process of planning, an attempt to get the factors into a computer that can handle the miriad variables, combinations, permutations, and reach some conclusions.

Fortune Magazine plays up this system. However, Defense Secretary McNamera himself, admitted in the final analysis that it was judgment that decided whether we go this way, or go that way. The system helps refine and define judment, but nevertheless it came back to him as a human being and his major commanders who made the decision.

The Fortune Magazine article pointed out the resentment of the old line employees...these slipstick boys and the computer boys with white frocks and print out sheets were telling them what to do! The old battle seasoned commander wasn't about to take these kids' advice. Some of us fear that maybe the computer technicians are going to rule the world. In the final analysis, it comes back to a human judgment kind of a thing... hopefully, this is just another process and we are just on the threshold of it...that can help better refine the judgment process. It can better bring forth and relate the facts that are involved.

Some other kinds of planning terms such as "project planning" occur for a park, a shopping center, a bridge, or for a particular real estate development. There is "developmental planning"...generally the type sponsored by the state industrial commissions, or state tourist agencies, or local chambers of commerce which indicate the kinds of things that could be done, or should be done, to alleviate unemployment, raise taxes, or alleviate outward migration of people due to loss of economic opportunities.

Site planning is more specific. It takes place on a particular plot of ground after somebody has decided that that particular plot of ground is feasible for what ever the purpose may be. How then do we utilize it? How do we put together the buildings, the access, the accommodations and so on...that it takes. Another bantering about of the word "planning" is strictly in the administrative field. Here is the operational plan of an agency, a city, whatever it may be...and here we get into the whole planning process involving personnel...the placement of people, the kinds of people, the manipulation of dollars...present dollars and future dollars. How do we evaluate and how do we report?

Toward the end of the week, we will get into relating planning to the budget making process. My background convinces me that they are or should be synonymous. Planning and budgeting are one of the same. Someone was lamenting the fact that the comptroller does the planning. He does, so we may as well face it. Let's just get some tools in his hands so he can do better planning. The comptroller does planning just as in your own household if your wife keeps the check book balance, she does the planning for the family. It is whoever wields that check-writing function in an agency or corporation; if they decide "yes, we'll put money into this, or we'll take money away from that so we can put more money into this..."

Different kinds of planning...personal planning as an individual, all of you do it for your careers, your education, your decision to come to this institute; where you are going to spend your vacation and how much you intend to spend and what other things you are going to do with your leisure; how you are going to get the personal satisfactions that Drs. Reid and Bury were talking about yesterday; how do you accomplish status satisfaction, security and all of these kinds of things? We're all involved in it, in personal planning. When you get close to 200 million people, each one of them or in family groups making personal plans...it gets just a little bit complicated.

Much of our early emphasis in so-called planning in this country and elsewhere has been in a physical sense. Land utilization, water utilization, natural resource utilization, our city planning efforts initially and to too large an extent today are concerned only with the physical aspect of the city. Urban renewal only for the sake of cleaning it up, making it look prettier, not for the sake of the people who are in that ghetto and what you are going to do with them. Close your eyes and they still don't go away. Run a freeway through and it still doesn't take them away. The concern has been too much for the city beautiful rather than the city functional and the city for people.

Functional planning! Some of us believe each of the specific functions that human beings require of the public must be planned. The dream is that they will all be meshed together in a coordinated pattern. We have had some pretty sophisticated transportation planning, and some pretty massive mistakes. By and large, in the last one hundred years in this country, we have had exceptional transportation planning. Since the passage of the Interstate Highway Act in 1956, some of the best planning in the world, far better than Hitler and his crew ever produced, came out of planning for the interstate system at the federal, state and the local levels. Good incentives were given to encourage communities to get on the stick and do some planning. You shouldn't stop an interstate highway at city limits because the city doesn't have a city street master plan and budget. The interstate highway is suppose to link major cities with 50,000 people or over in a continental network. You can't stop at Houston City limits. So it forces Houston and every city in the country to come up with their own plan, or the Bureau of Public Roads through the State Highway Department will plan for them.

One of the reasons I left an educational institution was because I got tired of talking to myself about the need for planning and conservation education. I got tired of saying the same thing over and over to myself and to classes and to groups all over the state, because I still had it in my head that planning could be related more directly to action. I affilitated for seven years as planning consultant with a civil engineering firm, and I learned quite a bit. The point was, if we are going to build a highway or a road, or a water main, or a sewerage main, let's do it in relationship to the whole city and the land use pattern around it. Let's try to use that particular public facility, the functional facility, to lead and promote and be get. We want to get the kind of development we evolved. It is axiomatic that suburban fringe type of development, or recreational type of development follows hard surface roads. You can plot the pattern of suburban sprawl in any metropolitan area in the world. All you need is an inventory map showing the location of the all-weather roads. The same is true to a less dramatic extent with the major sewer and water extensions. I say it is much less dramatic extent because generally the people get out there and start running out of water, or polluting the soil, or the streams or whatever, and "johnny-come-lately" comes the sewer and water main but at considerably more cost than it would have been if it was put out there earlier.

This is the concept that brought me back to an educational institute however, because people have got to get themselves intellectually equipped to handle this kind of thing. The consulting engineers alone are not going to do it. The planners alone are not going to do it. It is only going to come through a better sense of awareness on the part of the decision-makers and the general public.

Physio-economic planning is coming back again with emphasis primarily in the new Department of Housing and Urban Development and Health, Education and Welfare. It is necessary to have a comprehensive plan at the state level or at the local level, or at the metropolitan regional level before Uncle Sam will give you any grant money. I think the Bureau of Outdoor Recreation has done an excellent job no matter what is done with the Land and Water Conservation Fund in terms of acquiring land and developing it, by the fact that they have put 50 states on the stick and forced them into doing some kind of recreation planning. This is one of the best things that could ever happen for this nation as a whole.

The many kinds of planning entities confuse the picture; most of you represent straight line agencies and you have your own agency type planning. There are several governmental types of planning at the administrative level, also at the legislative level, we have different kinds of planning in the states, and in the Congress, and in the city councils. So that is one kind of planning and I'm sure that most of you are cognizant of the fact that you are doing just one particular kind of planning. All I want to do is suggest that there are a lot of other people doing some planning too, that you may not be aware of at the community level, the neighborhood level, the individual level, and at what I consider to be a new planning and zoning concept, "the developmental district level". You have every kind of grouping or regionalization under the sun and each agency has its own method of doing it. Each state agency has a different method of carving up the state into more managable planning entities. There is the watershed approach, the milk market approach, the labor pool approach, and I say there is a recreation type of approach or a "recreation shed" just as there is a watershed. These are various kinds of approaches. There are climatic regions, soil regions and some of us are presently looking at an ethnic region in south Texas which has all the other physical and economic characteristics. There are all kinds of planning energies and efforts.

Planning is popular now. The fact that Uncle Sam will pay up to 3/4 of the planning costs for community, state or regional planning helps to make it popular. What most communities do not realize is that planning is just a "bare bones" beginning. It had better become a permanent budgetted part of their program and administratively a part of their operation.

What about the fallacies of planning? There isn't need to spend much time on it, but planning just is not the "great white hope". It is not accomplishing what it could accomplish. We lack comprehensiveness, an understanding of interrelationships. I don't care if we are talking about highways, aeronautics, parks, or education. Most of our planning is single purpose, single function...we glibbly talk for 50 years in this country about multiple use; the literature can trace it back for another 50 years; and we're still talking about it and we are doing it to a very limited extent. Most planning functions are for a single purpose at a single place at a given point in time. Very few of them are capable of looking to the year 2000 or even to the middle of next week as we project ahead. This is one of the fallacies of so-called planning. We say we have a planning commission, a master plan, and a state outdoor recreation plan...and we really haven't. We've got a document...a piece of paper...that has limited validity for right now, but it doesn't go much beyond that.

Most of our basic concepts, basic material, and basic information is extremely inadequate and meager and too fuzzy, particularly when we get into evaluating feasibility of a project, public or private. We are trying to play with cost analysis formulas, cost benefit formulas, and we try to get in to the field of demand analysis. I think we can learn a great deal from the private sector of our economy, from the mistakes we have made with things like the Edsel automobile and unprecedented successes like the Mustang automobile.

Too frequently at the community and at the state level, as we talk about planning, we get confused because we consider that once we make the map, or the report, the job is done. Is the report the objective? Somehow we fail to get that report or that map translated into the heads of the responsible people. It needs to get into the heads of communicators, their own administrators and everyone below, and the legislative bodies. We often fail to communicate it to the legislative bodies which put up the money and give us our sense of direction and sets our policy. We fail to communicate it to the courts which test the constitutionality or the legality of this thing or that thing we are doing.

One of my big frustrations is dealing with the courts in matters like zoning, matters like feasibility, and matters like water rights allocation.

Most courts and most attorneys in Podunkville or in the state attorney general's office lack all of the things that we have been saying in terms of their basic understanding of resources and people and of the movement between the two. We fail to communicate with our special and general publics, and in the final analysis it is they who elect the legislators who act as a sounding board for our courts and for our administrative programs.

Most of us are totally oblivious as we go through a "scientific planning process" of the impact of some individual who might think up some new way of doing something better than has been done before, like an assembly line of production of automobiles. One individual decided he was going to have an integrated industrial complex down on the river Rouge just out of Detroit back in 1916, made up of his own steel mills, iron mines, coal, limestone, ships, forests, and pulling them all together into one spot in an industrial complex integrated horizontally and vertically. Such a thing was unheard of at that time. Yet, somehow Henry Ford made it work and he never had a planning course in his life, and he didn't have a "planner" or an economist on his staff at the time. We went on a hunch, a blind guess and had good luck. But a thousand others in that same era didn't make it.

Somehow we fail to reckon with these kinds of people, and they are all around us. They come to your agency with some screwball notion in recreational development, and they come to some screwball consultant with their notion, and the consultant says, "Gee! That may work!" and he gets all excited about it and they do it! These are the uncertainties we have to cope with, the spurts of innovation that made this world what it is. Thanks to these great individuals and innovators, speculators, promoters, developers... and they have also created many of our problems. But I am certain they have created our higher standard of living and our higher standard of culture.

What is the best unit and the best approach for planning? Water runs down hill, there is this a good basis for planning? Most major cities in the country, with the couple of exceptions I found in west Texas, are located on major river basins. Most agricultural land of any consequence is in a river basin. Water is a natural magnet for recreation. There are many, many reasons why the basin can be set forth as the logical, ideal method of planning. It is not necessarily exclusive as a planning entity. A basin that covers ten states, for example, or eight states like the Tennessee Basin does, is just a little bit complicated unless it becomes a totally federal project (and that makes it even more complicated). If this is the way we want to go, this is fine. To gain the voluntary or even coerced cooperation, of each of the specific states, counties, townships, parishes, whatever...gets to be a little bit complicated. Do we have some decisions that mix? Some basic ethical, moral, and philosophical decisions?

Whose responsibility is water that runs through each state? In flying over the TVA, I get the feeling that this is the "people's water". The water starts up here and runs downhill. This is fine until I happened to put myself in the role of a taxpayer and a municipality who have for centuries been taking their drinking water from upstream and spilling their sewage out downstream. They light their city and get their power at the same time. Somebody else upstream does the same thing and it impairs my rights now.

The river basin is a unit of planning. For some kinds of planning, it is a valid unit. But there are other units of planning that are equally as valid. The Port of New York Authority (?) represents one kind of a planning entity. The Houston Ship Canal represents another kind.

I commented a few minutes ago that historically good roads have wed development, and that development has followed good roads. Development follows the installation of good sewer and water mains. We can see, but haven't documented it very well, here and there where parks have improved the environment of a particular community. I would like to go on record to say that with the current enthusiasm and interest we have in recreation, planning, water quality, flood control, beauty, these things could be packaged and combined into being one of the most dynamic agents for stimulating good, sound, wise land use decisions. These decisions apply at the community level, the regional level, or wherever. If we've got the funds, hopefully we've got the know-how among the technical people that are involved to actually reshape our old cities, and to actually dictate the future shape and pattern of the new suburban sprawl that extends out perhaps a hundred miles from the city center from a city the size of Houston for instance.

We've got some pretty good examples of some major exposition-type things that have shaped cities. I think the Chicago World's Fair of 1893 is the classic that has set the pattern and shape of the city. As lousy as Chicago is and looks, it would be a lot "lousier" if it had not been for the 1893 "Century of Progress". It established the campus for what is now the University of Chicago, tying in with the master plan of that era for the City of Chicago, had built the outer drive on a land-fill. You probably couldn't do it today, the Corps of Engineers wouldn't let you land-fill in front of Chicago. It was a swamp anyway, the city shouldn't have happened in the first place, but it did. The influence that the "Century of Progress" had, and that the master plan had...it was so good when the Congress street expressway was completed a few years ago, connecting the Illinois tollway to the "loop", right under the federal building...this was in the master plan of 1910 that this should happen! Can you imagine anybody with the ability to perceive that far into the future that we would have vehicular traffic eight lanes wide in both directions and that it would go under the federal building? There was some imagination somewhere, and Chicago is a better city for it.

Can you see any lasting impacts in Montreal's "Expo 67" in the way of transportation, future parks, areas that will be converted to future parks?... those of you who have seen the Expo. We have a Worlds Fair going on in San Antonio in 1968, and I think here too is an opportunity to observe this thing in action. We've got the opportunity in our big cities and our Podunkville courthouse towns in the rural region between the big cities; let recreation, tourism, and transportation get linked together into a positive, dynamic, leadership type of program that can set a pattern and a pace for the future development of the area. I think that's our challenge. If we don't do that, we are going to be continually "filling potholes in our roads", continually patching up and never having the energy that runs into foresight to get out ahead of demand and to influence the shape of the city.

PLANNING PHILOSOPHIES, CONCEPTS AND PRINCIPLES

by

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Inventory for Planning

I would like to elaborate briefly on a few items that were mentioned by Ray Freeman and Dr. Suggitt. One of them has to do with inventory.

For park and recreation purposes, the inventory is simply the process of observing and recording the values of the landscape. One of the techniques touched on is remote sensing which is primarily an extension of aerial photography. The use of aerial photography as a planning tool goes back to the 1860's when two men went up in balloon over Boston and took photos of the city which they used for planning purposes. The technique didn't improve too much until World War II. Recently the field of remote sensing has opened up a whole gamut of possibilities for the planner.

You are probably familiar with the EROS program of the Geological Survey. It gets its name from the earth resources observation satellite. The opportunity in this type of program for the planner can be illustrated best at Joshua Tree National Monument. To cover the area encompassed in a single photograph from Gemini would require a mosaic of over 500 aerial photographs. One obvious advantage is that you could not take 500 photos all at the same time. Instead you get a mosaic that lacks the high fidelity of the single Gemini photograph that represents a given instance of time.

The EROS program has been used by many agencies. It has broad application in the State of Texas with the vast space programs now underway. One of the advantages of the EROS program is the monitoring of ecological conditions. The Forest Service has used the program in the Pacific Northwest and other places to find out through infrared monitoring which trees are diseased, what their ages are, and what type of trees the forest contains. A similar study has been undertaken by Geological Survey in Everglades National Park to analyze what is happening to the various habitats due to the drying up of the park.

It also has application in glacier research and in detecting and monitoring water pollution. Infrared images of Kilauea Volcano should prove helpful in predicting the eruptions due to thermal action of volcanic eruptions in the Hawaiian Islands. Aerial photography and remote sensing have been used to collect archeological data. In the British Isles the outline of Hadrian's Wall and the cleared and cultivated areas which date from the era of Roman occupation of about 2,000 years ago showed clearly from remote sensing imagery. The photo scanners were not looking for these features but pictures with this vast coverage showed the nonconformity that was later identified as the trace of the historic wall.

There are many other applications of the techniques of remote sensing to inventory the landscape. However, in our planning, most of us are still pencil pushers in a push button world. If we are going to get with it in the planning field, we must learn how to use these techniques that are becoming available. There are college courses available now on the subject of data analysis.

The inventory technique is used on all levels from individual site planning on up to the broad international level. At the international level through the International Biological Program, some 60 Nations are undertaking a program to inventory the organic production on land, in fresh waters, and in the seas to learn the potential yield of new as well as existing natural resources. This data can be processed on a machine and be made readily available.

On the national level the Bureau of Outdoor Recreation has recently completed a nationwide inventory from which it is extracting data for preparation of its National Plan. This plan is to be presented to Congress.

One of the goals Bureau of Outdoor Recreation set for this inventory was to systematize data for programming on data cards for ready reference through the use of data processing machines.

All the States have been involved in the preparation of state plans. In 1964 the State of Wisconsin sponsored an inventory of its resources. There Phillip Lewis' study led to the development of a unique system of land classification according to lineal patterns. The study team used the stream valley as the base. The valleys included the bluffs, ridges, roaring and quiet waters, wetlands and sandy soils. The team mapped three elongated corridors and identified their values. This systematic approach led to a more scientific basis for land use. One advantage of this procedure that Ray Freeman touched on earlier was that you usually have to sell these programs to people who are not technically trained. This systematic approach was easily explainable to committees and to State boards and to local citizens. Even to real estate developers.

A somewhat similar technique was employed by the Potomac Planning Task Force in its study of the Potomac River National Landscape. They divided this into three zones; the river itself, which included all permanent flows into it; then the river side, that is all land adjacent to the major streams; and finally the setting, the area you could see from the river. This aided considerably in defining boundaries and in recommending areas for zoning.

The previous panelists have indicated earlier that the planning process is continuous and should be flexible. We are attempting a new technique primarily involved with land acquisition in recreation areas. After lands have been classified as to purpose, intensity of development and capacity of human use, then they should be zoned to determine the degree of ownership required by the Government to achieve these purposes.

In recreation areas where the size of the area is sufficient to permit private uses, three zones may be prescribed. This is not to be confused with the three zones just discussed on landscape classification.

In land acquisition, zone one is for public use and development. It includes lands needed for administrative facilities and Government or concession development of public use facilities as well as the unique features, the primitive, historical or cultural lands which give the area national significance. The second zone is the preservation conservation zone and includes those lands which essentially "buffer" an area to preserve its environment. The third zone is the private use and development zone. This zone may or may not exist in all recreation areas. In part the reason for this zone is that it has been determined that no matter how much money is available in the Land and Water Conservation Fund, or any other kind of financing, there are never sufficient funds to buy all the land needed in fee simply for public use. Through the planning process, you would acquire only those lands in fee that the public actually has to have for use. It also solves many of the controversies because you will permit, with certain restrictions, some of the land to stay in or revert to private ownership. You might do this by acquiring only development rights, or by a scenic easement; or if a man has a small farm in an area that is not needed for public use, through purchase and lease back. Your planning indicates that farming would be an appropriate use, so to make sure that the land stays as a farm, you lease the land back to the farmer with the condition that he can only use the land for farming.

I am not going to dwell much more on land classification because that subject will be taken up later this afternoon, except to say that the Interior agencies use the Outdoor Recreation Resources Review Commission classification which divides the land into Class I High Density, Class II General Outdoor Recreation Area, Class III Natural Environmental Area, Class IV Outstanding Natural, Class V Primitive Area, and Class VI Historical Area. This three-zone land acquisition system is utilized within this framework.

The subject of comprehensive planning was covered very well this morning. Whether planning for New York City or Texas A&M, for a park or a recreation area, your planning proceeds from the general to the specific. It doesn't necessarily proceed smothly this way, but at least it gives you a form or a frame of reference for all to work within which is not based on rigid perfectionism but upon broad directional guidelines. In this movement, the first level of planning is the conceptual framework. It demands the type of planner who has vision and imagination. The patterns for use and preservation are established at this level.

In one city we studied a local group was proposing a national battlefield. The area included slums and a railroad switchyard--nothing else. We looked at it and said, "Somebody has got to be kidding". We went through the form and probably the motion of planning. Later in a discussion of concept for this area we realized that the city's primary historical resource was located outside of our study area but adjacent to it. We came up with an entirely different plan than we initially visualized, and surprisingly everyone "bought it" at our level.

Two outstanding examples of conceptual plans are the L'Enfant plan for Washington, D.C., and the Oglethorpe plan for Savannah, Georgia. Those plans created the character of those cities before the cities were established.

Back in the 1700's, Oglethorpe laid out Savannah, Georgia. His basic design unit--the ward--consisted of 40 house lots, each 60 by 90 feet, surrounding a central square. Flanking the squares were trustee lots set aside for churches, stores, places of assembly, or other public uses. As the city grew, its expansion prior to the Civil War followed Oglethorpe's concept.

The need for comprehensive planning has been mentioned many times. As old as New York City is, it still does not have an approved master plan. In 1938 a special City Planning Commission was established to develop a master plan, but no one could agree on what plan they should follow. This is one good reason why the conceptual framework should be developed as early as possible. It is very difficult to produce a plan that is not arguable. No matter what kind of a plan you come up with, there is always some element of it that is not perfect. We all strive for excellence but to expect to come up with a perfect plan leads to paralysis and surely paralysis is the worst vice in planning.

Yellowstone Park was established in 1872 and as yet does not have an approved comprehensive master plan. However, the park has had a considerable amount of good planning. If we had problems with concessions, we had special concession studies; if we had some problems with travel patterns or visitor use, we had special studies, but through all these studies the scope has been to narrow. The National Park Service has just completed a preliminary comprehensive regional study that included Yellowstone and Grand Teton National Parks and five national forests around the parks as well as other surrounding areas. These regional plans were presented to the communities around Yellowstone Park so the public could participate. And the reaction of the public and the comment that the various agencies had will be taken into consideration. We hope to have the plan completed in late 1968.

So the conceptual plan, the one we have been talking about, is a very important aspect of planning. We who deal in conceptual planning do not try to force our plans down the throats of the designers. We try to show our intent by schematic drawings. The schematic is a bridge between the conceptual plan and the second level of planning the area design.

Using an old example, when you wanted to drink out of a creek or a lake, you cupped your hand and brought the water to your mouth. The function is to get a drink of water. The cupping of your hand was a form or a concept of a vessel you used for drinking. Then the designer enters the picture. He designs the cup that will be used. The third level of planning is represented by the manufacturer of the dixie cup, and this could be the engineering drawings or the construction drawings that are actually used for going out and getting the job done.

I am sorry to have rushed through this last portion so rapidly but I wanted to leave some time for questions.

LAND USE PLANNING AND CLASSIFICATION

by
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The subject of Land Use Planning and Classification needs some narrowing down in order for us to discuss it here today. We're not going to consider some of the broader aspects of whether lands are suitable for agriculture, for industry, for urban development, or for many, many of the other uses for which land could be classified. We're going to assume that this has already been done by some great zoning board and what we have left to classify and plan for are variable sized areas of "wild land". These may be forests, brush lands, grasslands, mountain tops, seashores or whatever and may be in various degrees of "wildness" depending on past usages.

We're also going to talk about only some of the possible uses of these lands and emphasis will be on the recreation aspects. We all know that many of these wild lands could be used for lots of things that we just don't want to use them for and there's no need of discussing them here.

Gifford Pinchot once said, "There are only two things in this world, people and resources." This is the foundation for land use planning. On one hand there is the basic ability of the land to provide usable products and on the other the needs and desires of people to utilize this productive capacity.

Some of our decisions are ready-made for us. We can't grow trees in the Sahara, palms in the arctic or polar bears in Florida. But most of this "wild land" can and will provide a multitude of possible combinations of uses depending on who controls the management policies and how much people demand there is for the varied resources. This, of course, leads us to the much quoted, much discussed and much misunderstood principle of multiple use.

The Forest Service has been both praised and damned as the daddy of multiple use management. This obviously isn't so. Multiple use of lands is as old as humanity. Every civilization, every company, every government agency, every individual who has ever been charged with management of land has had to make multiple use decisions. The Forest Service is just one of these and over the years has managed the National Forests under what have become known as multiple use policies. Much of this policy guidance originated in a 1905 letter from the Secretary of Agriculture, James Wilson, to Pinchot which read in part --

"In the administration of the National Forests, it must be clearly borne in mind that all land is to be devoted to its most productive use... all the resources of the National Forest are for use...where conflicting interests must be reconciled, the question will always be decided from the standpoint of the greatest good of the greatest number in the long run."

Prior to 1960, there was no specific legislative authority for National Forest recreation management, for administration of wildlife and fish resources, or for wilderness use. However, appropriation acts had for many years included funds for recreation and wildlife. Also, some 14 million acres of National Forest had been set aside for wilderness purposes. So the situation was that although there was no real question about the authority of the Forest Service to practice multiple use, neither was there any clear statutory provision for several of the major uses nor any specific mention in law of the term multiple use.

Statements concerning planned correlation of uses had appeared in Forest Service writings as early as 1918.

Probably the first official use of the term multiple use was in a 1932 Forest Service report (Copeland Report) to the Senate entitled "A National Plan for American Forestry". By the late 30's and early 40's, the Forest Service was involved in land use planning on the National Forests and Ranger Districts. An important development in 1948 was the first official Forest Service statement on the guiding principles of multiple use and sustained yield. It appeared in the Chief's 1947-1948 report, as follows:

"In line with the primary objective of 'the greatest good of the greatest number in the long run' the Forest Service applies two basic principles in the management of National Forest resources. One of these is the principle of 'sustained yield'...the other basic principle is 'multiple use'..Multiple use management...looks to the coordinated development and use of all the resources and values of the land. Conflicts between resources are adjusted under overall management plans. A combination of several uses is usually possible on the same area. Through Multiple Use management, the Forest Service seeks the highest total of public services and benefits from the National Forests."

By the spring of 1958, multiple use planning on the National Forests had gained enough attention to warrant the Forest Service calling together representatives from each Region to the first Service-wide multiple use meeting. From this meeting came two basic decisions: (1) that Regions would develop Regional Multiple Use Management Guides and (2) that the multiple use planning unit on the National Forest would be the Ranger District.

Up to this point, the Forest Service had administered the National Forests largely on the basis of experience and professional judgment as to what combinations of uses would result in maximum benefits for the most people. Now, increasing pressures from powerful user groups and lobbyists threatened to take administrative decisions out of Forest Service hands. The effects of the population explosion were being felt. With the population at 180 million and 180 million acres of National

Forest land, there soon would be less than one acre per person. Compounding the population pressures were demands created by higher living standards, more leisure time, better roads, and the desire on the part of the people to "get away from it all".

One example of the kind of land use conflicts the Forest Service was encountering was an application in 1954 for a TV tower on Mt. Pisgah in North Carolina. Hundreds of protests were received from conservationists and a public hearing was held in Asheville. Later, the Forest Service recorded that more than 9,000 individuals and 39 government agencies or civic groups had presented their views to the Forest Service. The Chief Forester, in a statement approving the application expressed regret for the loss of aesthetic values on Mt. Pisgah but stated that the TV tower was, in his judgment, in the best public interest.

Because of the overall situation that was developing on the National Forests, the Forest Service felt that it needed basic legislative support for its multiple use policies. Therefore, in April 1959, the Forest Service submitted the first draft of a Multiple Use-Sustained Yield bill to the Budget Bureau for study. At first, the reception was cool but by late summer the opposition began to lessen and some changes were suggested in the language of the bill. Among these were the listing of the five renewable resources, outdoor recreation, range, timber, water, and wildlife and the addition of language authorizing cooperation with State and other agencies. The Forest Service was happy to make these changes and soon the brief, one-page bill was ready for Congress.

In February, 1960, the Multiple Use-Sustained Yield bill was first received by the 86th Congress. This was an election year. Eisenhower was President but there was a Democratic majority both in the House and Senate. The Multiple Use-Sustained Yield bill had to take its place among more impressive and vote-getting measures such as medical care for the aged, depressed areas, minimum wages, and housing. Despite the fact that it was a "minor" bill, it got early attention and by the time the House Committee on Agriculture opened its hearings on the bill in March, 1960 similar or identical bills had been introduced in both Houses.

In the 86th Congress, the House Committee on Agriculture considered over 800 bills. A public hearing on each would clearly have been impossible but the Multiple Use-Sustained Yield bill met the criteria for such consideration and responsibility for conducting the hearing fell to the subcommittee on Forests. After two full days of testimony, the Forest Service tabulated a total of 128 views presented in person, in letters, or in prepared statements. Of these, 36 were from timber, livestock, and other business representatives, 32 were from members of Congress, 29 from water, wildlife, and recreation groups, 17 from farm and related organizations, and 14 from State and local governments. The only amendment in the bill resulting from these hearings was the addition of a statement that the purposes of the bill were "not in derogation of the purposes for which the National Forests were established as set forth in the Act of June 4, 1897".

The House Committee itself later added another amendment covering the minerals resources on the National Forests.

Most of the Senate action on the Multiple Use-Sustained Yield bill took place after the deliberations in the House. The Senate Sub-committee on Conservation and Forestry, however, did not hold hearings or even conduct formal meetings on the bill. Instead, notes, drafts, memos, correspondence, and other documents passed between staff assistants; but the Senate report on the bill added two important amendments to the House bill. One provided recognition of wilderness areas on National Forests and the other established legal definitions of multiple use and sustained yield.

The fifth and final amendment to the bill as reported by the Senate was made under the "5-minute rule" in the closing stages of final House action on June 2, 1960. This addition reads:

"Nothing herein shall be construed as affecting the jurisdiction or responsibilities of the several States with respect to wildlife and fish in the National Forests."

The House, by voice vote, then passed the bill. Six days later, on June 8, 1960, the House bill passed the Senate. On June 12, 1960, the President signed into law the Multiple Use-Sustained Yield Act.

The reason for taking this time to present the events leading up to the Multiple Use-Sustained Yield Act is to dispel any impression or feeling that multiple use is something the Forest Service picked out of a hat. Nothing could be further from the truth. Multiple use, however imperfectly the Forest Service may apply this extremely complex principle of Forest land management, is the product of a long and painstaking evolution. Where once it was a policy, it is now law. The Forest Service no longer has a choice. It must practice multiple use and sustained yield or the Secretary of Agriculture must answer to the President and to Congress.

With this background of how multiple use policies and legislation evolved, let's take a look at how they can be put into practice. This isn't easy. The definition itself isn't simple and any application that complies with all the requirements in the 1960 Act has to be one of the greatest juggling acts ever put together. But this is not surprising when we consider the complexity of the subject - developing and managing renewable resources on 180 million acres of National Forest land to meet the Nation's dynamic, changing needs for all the goods and services these public lands can furnish. And, doing all this, without impairing the productivity of the land.

It probably would have been easy to draft a simpler definition - one that would have been more specific as to what was to be done on the National Forests and how much of each resource and use was to be provided. But how long would this have been in harmony with the Nation's needs?

On the National Forests, our best efforts at quantitative planning for a single resource or use are usually out of adjustment in 5 years or less. Any definition of multiple use that is to be lasting, therefore, must provide flexibility for these adjustments to meet the changing needs and requirements of the people. Clearly written into the definition of multiple use are the two things that Gifford Pinchot said count most in this world - people and resources. And this is the point at which multiple use planning on the National Forests begins.

Before I get into the procedures for National Forest multiple use planning, I want to clarify a point. While the 1960 Act is directed specifically at the National Forests, the principles of planning and classification involved apply equally well to any wild land management situation. Purposes, reasons, authorities and needs vary - certain uses are legally excluded from some situations and encouraged in others. This doesn't change the basic need for weighing resource potentials and the demands of people, each against the other, in making management decisions.

The first job is to inventory and analyze people's needs and the capabilities of National Forest lands to meet these needs. Consideration is given to what the forest lands in other ownerships will furnish in determining a proper role for each of the National Forest resources and uses.

At the National level, the results of these inventories of people's needs and forest resources are reflected in the Chief's policies and objectives that are in the Forest Service Manual. Within this framework, similar inventories are made within each of the 9 National Forest Regions. This results in more refined objectives that appear in Regional Multiple Use Management Guides. This follows the agreements reached at the first Service-wide multiple use conference held in 1958. Each National Forest writes Forest-wide supplements to fit management situations specific to that Forest.

The final steps are the preparation of District Multiple Use plans which contain management decisions for specific areas and the development of functional plans for each resource and use to carry out the objectives of multiple use guides and plans.

Traditionally, National Forests policies and objectives emphasize the natural rather than an artificial environment, the native species of plant and animals rather than the exotic, and quality of product rather than quantity. Applied to the resources, this is reflected by --

--long rotation, high quality, saw timber products
--native species of game and fish
--simple outdoor recreation opportunities in a natural environment
--good hydrologic conditions to absorb and store precipitation, releasing it slowly to maintain clear springs and streams
--and utilization by domestic livestock of native woodland forage in areas suitable for grazing

Multiple use does not mean that all uses must occur on every acre. A necessary provision of multiple use is the modification, or exclusion of conflicting uses to meet planned objectives for designated areas - for example, timber and harvesting with wilderness objectives. Therefore, commercial sales are excluded on such areas.

Policy guidelines for coordinating resources and used issued by the Chief are called coordinating instructions. These appear in the Forest Service Manual. Similar guidelines issued by Regional Foresters are called coordinating requirements and these appear in the Regional Multiple Use Management Guide.

In Ranger District Multiple Use Plans, coordination is accomplished through management decisions for specific areas termed management zones and management units.

Someone has said that multiple use is a zoning process. Although this is a greatly over-simplified definition, there is a lot of truth in it. In his talks, the Chief Forester often compares multiple use zoning to planning a house. For example, certain areas of the house like the kitchen and laundry room and bathroom have limited but highly specialized and important functions. On the other hand, areas like the living room, family room, or den can be adapted to a variety of activities. Bedrooms, reading rooms, and dining rooms can serve either specialized or general needs. And the hallways and stairways, lined with paintings and family pictures, connect the other areas.

So it is with multiple use zoning. The Chief's instructions establish and define three multiple use management zones for application on all National Forests. These are ---

---Water Influence Zones: Areas of National Forest land adjacent to lakes, rivers, and streams embracing the immediate water front and related developed recreation sites or other occupancy areas. The management objective is to protect and maintain water quality by establishing standards and conditions to use and also to protect and improve the scenic or aesthetic values of the zone for maximum enjoyment of the people using it.

---Travel Influence Zones: These are scenic corridors along the principal roads and trails through the National Forests which receive the heaviest use. In these the management objective is aimed at preventing unsightly conditions and at maintaining and improving the aesthetics of the zone by growing healthy stands of timber with flowering trees and shrubs in the understory wherever this is practicable.

---Special Zones: These areas classified by Congress, the Secretary, Chief, or Regional Forester in recognition of unique, unusual, other significant public values. These include the 14 million plus acres of National Forest wilderness, the smaller scenic, geologic, archaeologic, historic, and other recreation use areas, and the Experimental Forests and natural areas established or reserved for scientific study. Management objectives for these areas limit full-scale multiple use and emphasize the special values for which they are established.

Definition of additional zones is left to the individual Regions, which they ~~do~~ in the Regional Multiple Use Guides. Western Regions recognize such zones as crest, foothills, desert, and others which present definite multiple use opportunities and limitations due to elevation, topography, vegetation, and other factors.

The Eastern Regions, being largely timbered and having more uniform physiographic characteristics, recognize a General Forest Zone, This is by far the largest of all the management zones. It provides most of the ---

---timber harvesting

---grazing

---basic watershed protection

---wildlife habitat

---hunting and other forms of dispersed recreation

---mining

---special uses

---other (administrative, protective, etc.)

The District Ranger is responsible for coordinating on-the-ground action plans and programs. To do this he prepares a multiple use plan and map. On the map, he shows in color the management zones which the Chief and Regional Forester define. For these he develops and recommends specific written management decisions which the Forest Supervisor reviews and approves. For special local situations that occur within the management zones the Ranger recognizes what are termed management units. He draws the boundaries of these on the multiple use map, and prepares management recommendations for the Forest Supervisor to review and approve. An example of a management unit would be a municipal watershed area where special management precautions are needed to prevent water pollution. Another example would be an area of low timber productivity which is principally valuable for watershed protection, wildlife, and scenery. The decision might not be to build roads or make commercial timber sales in the unit.

RESOURCE MANAGEMENT AND OPERATIONS

by

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Park Management is a special kind of job needing a very special kind of man to be truly successful. Yet for this man it can be a rewarding and satisfying job serving people who are interested in the out-of-doors, and working with resources of natural history, beauty, and inspiration.

We want to talk about this manager so let's start by setting our field: I refer here to non-urban outdoor recreation. This will include mention at least of historic parks for someway man's history has a way of being involved in and around many of the great park areas.

Secondly, I suggest we borrow from an old Forest Service training officer whose primary career in recruiting young men was that these men be of full and capable caliber for being a District Ranger, so he simply began calling his intake trainees "Ranger Caliber!". We will discuss Ranger Caliber today after he moves up to be the administrator for a park or a park-like place.

Third, this presentation is on the basis of decision making: Ranger or Superintendent - Caliber has to keep a lot of things in mind as he shapes a course of action. Lets look at some of these pressures he must consider. Lets draw a pie chart so we can show our Superintendent Caliber right in the middle and then draw in wedges or vectors of force that weigh in the decision making process. Lets keep in mind that while these forces are elements of decision making push on him, if he is able, diligent, imaginative, creative, successful as I'm certain Mr. Caliber, must be, these forces become reciprocal and work outward as well as inward! He creates forces in his community and agency which may change ways of doing things, concepts, and philosophies.

Now, what are these forces? We can begin with something about the agency that Mr. Caliber works for, only, it need not be a governmental agency, it can be a company. Whoever it is, Mr. Caliber works for somebody or some outfit so that "His Park" really fits into a pattern of goals, standards, policies, procedures that give it a special identity.

What outfit does he work for? I have no doubt about my identity in an organization. I represent the National Park Service. It's a definite agency with the U.S. Government. The same is true for the Bureau of Land Management, Bureau of Reclamation, State Parks, County Parks or many private outfits - many of you people here report to County Districts or County Boards, because of your agricultural advisory capacities, and so on.

What are your agency or company policies? What do they tell you to do? What is the history and policy of the outfit? What things may be happening to change the roles and policies of the agency?

Next, those of us who have an identity with a park realize that this park was created for a purpose. It may be a park, recreation area, forest or city park - it is there for some reason. What is it? What is the background of the area you look after and manage? Why is it there? What is the legislation that set it up? This usually gives us the background.

Take a place like Grand Canyon. Why is it a park? You know, about the big scene, but what is the legislation behind it? You know it was nearly sold to the Anaconda Copper Company at one time for a million dollars, and they didn't take up Bucky O'Neil's option. They probably should have!

Lt. Ives looked at it in 1857 and said, in effect, "My eyes have been the first and probably will be last to see this profitless waste." The Santa Fe Railway President looked at it in 1902 and was disgusted. He said there just may be 50 people a year that would pay to see Grand Canyon! But it took only seven miles of extension railroad track so his successor went ahead to open up Grand Canyon. You can understand why he built the railroad track where he did; he just built it where it was the cheapest. You need to know this kind of a background so you can understand how you and the park got there. It helps you fit in to today!

Now, we've got other things working on Mr. Caliber, some pretty broad national forces - things he can't control, such as forces of demography and aging. He needs to know about how many retired people are in the community surroundings, how many kids, the transportation set-up, how close to town, the program of the State, County and towns for natural beauty. These are forces that are working on the Superintendent that he has no control over. As he works with the agency, he can have some influence. He can go ahead and make administrative decisions. But when he gets into these community broad forces, national in scale, they usually just work on him. He has to recognize this as he makes his own decision. So we put another wedge in our pie: "national forces".

Then, we come to another factor: The kind of resource that you're dealing with. Is it strictly a recreational purpose or is it natural beauty, or is it historic? Is it fragile? Is it durable? Will we wear it out by looking at it? Can people spoil it if they don't use it wisely? What is the purpose of the park itself? The nature of the resource tells us why there is a park there.

Then Mr. Caliber has got to think about the number and kind of visitors. Are they kids? Is it a day-use situation? Is it beach-oriented? Water-oriented? Are they people who have traveled across the United States to get there? This can be important, for example, as I have worked at Yellowstone, Sequoia, Grand Teton, Glacier, Rocky Mountain. I can't see myself standing at that gate, or telling a ranger to stand at the park gate at 3:30 in the afternoon, and tell the man who's driven all the way from Miami, Florida, "Sorry, we're full today, come back tomorrow." If you're dealing with a local situation, you may be able to do this, but with national travel, I don't think you can do it. There's got to be other ways to handle it. And, this is another chunk of Mr. Caliber's administrative responsibilities!

Now what are your relationships with your community in your regional planning? This modern concept we talk about is the interrelationships of environmental planning, or regional planning. What surrounds you in your Park? What's going out there that will influence you in here? What about your road network? What about your water-use planning, zoning - things of this kind? What is the strength of your local interest groups?

Mr. Scheibe has some real strong local interest groups or councils to help him, and while some of you might think this is a pretty tough way to work, actually, I think it is good to have this direct involvement with the people you live with. There is real strength in this kind of thing. Lets use Cape Cod National Seashore as an example. We have five towns on the Cape and each of these towns have town meetings, very much like the community council meetings that Mr. Scheibe was talking about yesterday. Each one of these towns nominates one person to be on the Cape Cod Advisory Commission. It is a lot more formal than that but the impact of what these people in the towns think is being fed into us and in turn we have a chance for our planning, and thinking to reflect to the people through this Commission. This slows you down, but you're going to have to stand up in front of a town meeting sooner or later and tell why you did it this way; why you are putting in developments, so a previous review with your commission can be very helpful! This is a very important aspect of Superintendent Caliber's work! Community planning!

Now, let's look at another element. What is the political pressure situation? Is Mr. Caliber in a situation where the chairman of the welfare committee calls him up and says, "I want you to put four boys to work tomorrow," or, 'are you working under a civil service situation that gives you a certain amount of procedural control?' Of course, those who do can escape some of these employment requests. But are we, or Mr. Caliber, subject to local demands such as a job for somebody, or a saddle horse contract to Mr. A instead of Mr. B, or a certain road job because it will help a community outside the park which has a politician who didn't do well in the last election and he wants to get something done to improve the picture?

I don't know what the answers are, and that's part of the beauty of all these things we talk about - there are no right and wrong answers. They're just different answers for different places!

Now, let's take a look at the next factor - research. These various factors are not in any fine order of priority, or importance. You and Mr. Caliber, and the things that are important to me, may not be important to you. Finally, you'll have to pick out of this organizational pie the pieces that will fit you. How do you get research done? And finally, how do you get some use out of it? How do you translate it into action?

I'm talking about the kind of broad research that tells you about such things as wildlife migration, patterns -- grizzly bears, for example - how far do they roam? What are their migration patterns? What are their food habits? I use to wonder about some of this, and I have to go back to Yellowstone, because that was my most recent traumatic experience, and let's think about this wildlife for a moment more. Here's a student who made a study on "Phytophagus insects in the Lamar Valley." Now, who could get excited about this? I didn't see much sense to it. But when he gets all through he shows that because the Lamar Valley for years operated as a hay ranch, we brought in these phytophagus creatures - grasshoppers. These grasshoppers were adapted to the Timothy and the sweet clover and hay and grasses that were brought in. But then we suddenly decided to quit putting up hay and go native.

The grasshoppers should have starved to death, but they didn't. They adjusted to living on the native grasses. And in the long run, this crop of grasshoppers might be eating more grass than all of the park elk! There were that many of them!

Now, we had had no ideas about the situation, so what should we do about it? At least we might do something about it after we knew what the problem was. But it took a researcher to point it out, and then it took a manager to make the decision - is he going to try to spray a little bit to get rid of some of these grasshoppers? What is he to do? Can he do it?

You not only have research on this kind of resource, you may have research on people, or even on such simple things as soils. We certainly had a discussion of this Saturday. Sewage disposal fields must be influenced by a knowledge of soils that tells what we can and must do in our environment for effective sanitation.

Another aspect of Mr. Caliber's job is with "concessions". And, this is a "concession problem" in many cases. I don't know of many where it isn't a problem and a tough one. What services do you offer?

I have a friend in one of the African parks who thinks the way we handle concessions is horrible. He says in effect that, "Once you let someone else invest his money in there his objective is to make a profit. He doesn't care about the park; he's in business. And, it's hard to say no to a ferris wheel or an elephant ride." I use these as extremes to illustrate what might happen! These are the kind of things that you could get into, simply to help the guy recover his money.

Of course, we don't operate on that basis. We operate on the basis that private industry provides as many of these facilities as they can under good control for public services.

We have another chunk of our chart here called maintenance. I will talk about that one later. We need to know factually about our maintenance and equipment. How many of these sophisticated machines do we have to tell the other machines to do the work? We will go into this more deeply later.

As we talk about maintenance, we get involved with the manufacturers of new equipment, for example, Skidoos, Tote Goats, trailers. How much of our thinking do they do for us? All of a sudden, we're faced with many new situations! Do you remember when detergents first came out and they began getting foam in sewage plants. I can remember this because I was at Grand Canyon where the sewage plant was probably the first one in the United States designed in 1929. We reclaimed good clean water there within rather strict limitations, but in 1950 or so all of a sudden John Cook called me up and said, "Come down to the sewage pond, I have problems." When I got down there that morning in all these aeration tanks, the sewage water was rolling and boiling as the air came up through it. But on top of the water there was snow-white foam eight feet high flowing all over. They were out there with a hose spraying it, trying to knock it down and not accomplishing a thing. We stood there with our mouths open. What do we do now?

Johnny finally remembered, "I think there was something in American Sewage and Water Works Magazine last month on this. I think I remember it. Let me look it up." And he did and then we went up to see the man at the local laundry. "Yeah," he said, "I changed detergents yesterday." And, there was the answer. We were not equipped to handle that kind of detergent. We had no notice of its coming, and all of a sudden, there was a new problem dumped in our lap. This kind of thing goes on all the time as we learn to use new materials, new plastics, new metals, new techniques.

But we've got another aspect to look at: competition between visitors for use of the same resource. We had a discussion of the number of visitors, the kind of visitors, and the things they might want to do. Now, we get to a special consideration - the competition between user and user, such as water skier and fisherman, water skier and swimmer. There are many competitive kinds of uses, such as a decision on policy for use or preservation, or a compromise. We are to promote the use in such manner and by such means as leave the scene unchanged for future generations.

Now, that's a tough one...competition between use and protection. We have conflicts in policy on such things as the use of controlled burning. What do we do about this? Do we quit burning in some of our national areas of wilderness and have fire equipment in others? We get competition between private and public; user and user. Should we build more campgrounds in national parks? I say, no, but a lot of ther people say we should. It's an obligation. You think of camping and parks, camping and forests, they go together! But once you get down to where you're stepping on the toes of private investors in outside campgrounds you have another ball game. And, of course, they say, they don't want any more park campgrounds.

We list only four kinds of competition - (1) visitor services, (2) user vs user, (3) protection vs use, and (4) public vs private. Hopefully we can produce order and reduce this competition,

What about standards? As Manager Caliber needs to make a decision on clearing for a new trail or a road right-of-way? What standards for quality of visitor experience are we providing? Quality of visitor experience in the parks or areas of recreation management? What standards did he have to guide him in making that decision?

Is there a role for philanthropy or foundations? Today we deal more fully with the Nature Conservancy. They have been very helpful in an advisory capacity similar to our work with the Izaak Walton League and outside groups. But today the Nature Conservancy has this tremendous outgoing program. They are trying to help groups like the local Ikes or sportsmen clubs or Save the Dunes or Marshes by acquiring key pieces of land until others can raise the money to dedicate it for the future.

Thus you may need to buy a piece of land and values are accelerating rapidly. You can see that within six months you can raise the money to buy it, but you need to do it next week. Some of the philanthropies can help you out, and it's a good deal. There is a role there for a foundation.

Cooperating schools are helping out in training. We have for example taken about six permanent historian interpretive jobs and set up a training cooperative with Northeastern University. We hire mainly girls to come as historians - Grade 4 and Grade 5. They work six months and go back to school, and we get another group from the school. It takes a full time position with two students using it. They get the practical experience, earn money, and we get to take a look at them to decide whether they contribute to our organization. They get a chance to look at us and become acquainted with the whole field of potential informative and historical interpretation. This cooperative with one school can be a prototype for many others.

These are some of the ways in which Mr. Caliber needs to know what is available and what is going on - how can he get in on it?

Other things may just go into a general miscellany, camping, picnicking, trails, teaching, marinas, safety, signs, maps, many things. They are all important, all part of the administrative workload for Mr. Caliber. Employee training, workload standards, budgets, reports are all aspects in the operation of the job. Maps are one of the most important aspects of our job that we just take for granted.

Workload standards - how much should a man do? In the Forest Service they used to make advance work programs to know how many man-hours would be put in for different things such as trails, timber management, conservation work, emergencies, work, etc. We need to have workload standards and measurements and then develop projects accordingly.

One of the precepts we adopted when I was chairman of the MISSION 66

Steering Committee has to do with protection of the resource. It is one of the most important things to work with. Protection of the resource is often best achieved through good development. That sounds like a contradiction. But, sixty years ago Yosemite had no developed roads, stage drivers made roads all over the place. The trees were festooned with dust, the brush was all knocked down, the whole thing was a mess. Now we've got developed roads, with an established road pattern and shoulders, travel multiplied 500 times; yet the quality of the environment is greatly improved over what it was. Esthetically and ecologically we have got a much better situation. The development of the resource and channeling of traffic gave us a resource protection that we badly need.

In Yellowstone we put boardwalks around the geysers. These are simple things. They don't hurt anything, and we lay them out to take visitors to the best place to see the geysers, to take pictures and to get visitors safely across the hot ground. Here we have provided one development which achieves a lot of things - resource protection, visitor safety, visitor enjoyment. So this protection of the resource is truly achieved through good development and use.

Development is very important but the follow through on the operation and maintenance of the completed facility is also a critical task. So, we must arrange for the use of the park and facility by visitors. We must keep in mind the quality of the visitor experience Mr. Caliber was speaking about. And, in some situations a limitation of numbers of visitors is required. But this is a matter for Mr. Caliber's judgment!

As we talk about this problem of resource management and operations the time has never been more critically important or more favorable for success than it is today! We are in a rewarding field indeed!

Personnel Management

Today we should talk a bit about personnel. This topic would require a full week if we were to discuss it in depth. I brought literature on Park Service Programs. This includes "The Plan for the Man", which discusses our promotion plan. We have other publications such as "Careers in the National Park Service" and "Seasonal Employment" and the National Park Service briefing book which reviews how we are organized, and the guidelines that govern our administration of national, historic and recreational areas.

Any of you in an agency that has a sizable operation in recreation administration, must almost have the same organizational pattern that we do. You have uniformed people, administrative people, maintenance people and specialists. Maintenance people represent almost 42 per cent of the people employed by the Park Service. I don't have the figures for the rest of them.

We make our employment breakdown differently than the Forest Service for example because our administrative people do our paper work, and our operations people are the ones who work in our direct field activities. The administrative function is primarily a service function. The personnel people, the property management people, and the bookkeepers, give the information and provide the things we need to work with through purchasing to get people hired, on board and trained. Accounts and budget sections take the information given and develop a budget to justify the money needed, and then sees to it that we spend it for the purposes we requested it for. This is an easy trap you fall into. You get the money for one thing, and by the time you get it, you need something else. This can get you into difficulty if you don't spend the money the way it was programmed to come to you.

Besides operations and administrative staff you have specialists who staff the service centers and provide the professional assistance we need in all of our operations. These specialists include landscape architects, engineers, architects and increasingly people with this strange classification of park planner or recreation specialist. The latter classifications are new with the Park Service.

Your intake program depends on the kind of staff you are looking for. Basically we are looking for college level men and women with conservation orientation and with high potential. The uniformed personnel--rangers and interpreters--are the ones who deal primarily with the visitors. But there are many opportunities in this recreation field for landscape architects, architects, engineers, and planners. In our service we promote from within almost exclusively, so that the career opportunities in this agency are pretty good. From 1956 to 1966 the total permanent employment in this one agency has grown from 5,286 up to 8,566. At the rate that Congress is adding new areas to our administrative responsibilities the potential for growth in the late 60's and early 70's is going to continue. Of course, this is dependent upon budget and ceilings, but for us to meet the responsibilities that we have, things have to go up. I just mention that in the Northeast Region, with which I'm connected, to staff the new areas that are coming into operation this year for the first time, we need over 50 additional positions. We probably will not get that many, but it is what we need to staff Delaware Water Gap, Pictured Rocks, Indiana Dunes, and John F. Kennedy's Birthplace.

All of our professional positions are filled through the Federal Service Entrance Examination, The FSEE. This exam is given every month in most large cities of the United States, except in August, September and December. Applications are easily obtained from the Commission.

When we select intake level uniformed people, ordinarily Grade 5, the first thing we do with these recruits, usually just out of college, is to send them back to school. This is the Albright Training Center at Grand Canyon, which schedules 12 weeks of classroom orientation and some of the specifics that we want. We cover agency goals and some of the specifics of how to do certain things such as rock climbing, fire fighting, law enforcement, riot control, and reports and planning. After these 12 weeks of orientation, which may be reduced to eight within the next year, the man is still in his probational year and is sent on permanent assignment to a park for the balance of this probational year. Most of the men who come in GS-5 jobs move to the GS-7 journeyman rate automatically after their 12 month probational period.

We are also going into a training concept now, for an additional assignment in the training park for one year and then move out.

Just to give you an idea of the size of the National Park Service operation in the Federal establishment, we take in only 135 to 150 uniformed men a year. That's all the jobs there are. About 70% of these are Park Rangers, a few might be placed in naturalist positions, and about 20% of our uniformed personnel are historians. I suspect we hire more interpretive historians than anybody else in the country. About 5% are archeologists. Of these 135 to 150, about 10% are from minority groups. Nearly all of our resource managers come in as Park Rangers, and then branch out after they get their job training. All of our resources men, with the exception of those involved in true research, come in on the ranger side.

The non-uniformed employees include the administrative and clerical, and we have been successful in getting people with degrees in public administration such as in personnel management. Others in the accounts and budget section have bachelors and masters degrees in public administration.

I'm sure you are all aware of the equal opportunity employment programs that are a requirement of the United States employment picture. There is emphasis that all men are created equal and we are moving ahead to make this a reality. And at the Federal government level, strong efforts have been made and are still being made to take positive action against all facets of discrimination in public life.

Once we get the man recruited, we send him back to school. Once he gets on the job, there are still continuing training requirements.

Major training programs are for promotion and advancement for people. They qualify themselves just by being on the job but have they got the personality traits to move ahead? Believe me, if you don't like people, this is the wrong business to be in and yet we occasionally find employees who think they want this career but they don't like people. They don't last too long in this situation.

This little booklet "The Plan for the Man" is one that has been developed by the Park Service for an individual development program discussing the steps a man may take in counciltations with himself, and his superior officers, to qualify for more responsible duties. He should not necessarily look only to advancement in grade and pay, although this nearly always comes, but also to feel that he is doing a better job.

We are trying to develop career ladders. A man who comes in at a GS-5 usually automatically goes to a GS-7; he has options in the interpretive field, planning field or in administrative work. Some go into the administrative field because they like this kind of work. Mainly, you let the man establish his own career goals and try to help him work towards these goals.

For him to do this intelligently, he has to have some knowledge of what the possibilities are . . ."where can I go?" "I'm a GS-7 ranger at the Craters of the Moon, and I have no way of talking to the Personnel Officer about how to move over to being a naturalist or park planner." How do we get the information to this man so he knows the possibilities that are opened to him? This booklet tries to help him over this critical point.

As a man moves up the ladder, there are more and more possibilities and broader horizons all the time. So we work on these career ladders, and we work on the sequential training for this man so that he fits himself for a happier life and a more productive and rewarding experience.

Some years ago, I was going through the Forest Service training school at Feather River in Quincy, California. One of the benefits was getting acquainted with the personnel officer. He said, "A man working for the Forest Service should be able to work for 30 years and on retirement look back to a rewarding life. He had enough salary to live on. He had good responsibility and stature in his community. He had been able to get his kids through school. He could retire with pride in the things he had done." This made a deep impression on me. I think that all agencies should make a career meaningful so that a man can reach his own ceiling, or reach a place where he decides to stop because he likes it there. He can work out his term of years and feels that he has made a contribution to the important things that he believes in. His life and career have been worthwhile. This is tremendously important, it rewards the individual and his life and public service rewards the people of the United States.

I mention three other things: the National Park Service has embarked on a program to re-employ our retirees, as we find special jobs they can do. These men bring us their years of service and great knowledge of our operations, objectives and goals. And, we find a lot of them are bored after retirement and are pleased with an opportunity to come back and make use of this background in a constructive manner.

Second, we probably have more seasonal employees than permanent ones in the Park Service. These men work on trail crews, roads, fire, or as uniformed seasonal men. Whatever it is, they have an opportunity for a season of constructive experience. The reputation of the Park Service has almost been built by the comportment of these youngsters who come out and take over these jobs.

Third, is staffing standards. You look at a master plan and start getting down to details of how many men is it going to take to run a campground? Or an entrance station? Or to staff a museum? These work load measurements are a real problem. This is particularly true in these uniformed public contact positions. A man thinks he knows what he is going to do today, but all of a sudden there is an automobile accident or an emergency of some kind, and he never gets at the things he intended to do. How do you develop a work load measurement for people who are on these erratic assignments? This is a tremendous difficulty, especially for agencies which deal with great numbers of people on vacation, and someway we need to develop better measurements of true needs.

I have noticed in visiting forestry and recreation schools that the top level students all seem to want to get into planning. This is good. There are increasing opportunities in this field, and a number of new Park Service employees are interested in it. The concern and recognition probably starts with the faculty and their influence on students to become recognized with the need for providing adequate recreation planning.

We rotate our personnel from assignment to assignment to provide a breadth to background and experience they would not get any other way. The liberalized moving expenses will help us move people but it is also very costly. So, we may find a greater position stability evolving in the years ahead of us.

That is about all I want to say about personnel. Are there any questions?

Land Acquisition

I personally don't have much experience in land acquisition, but we are handling the acquisition of land at Cape Cod, Fire Island, Minute Man, and the Delaware Water Gap in my office. We have Pictured Rocks and Indiana Dunes also, but limited land programs at this time.

When you start a land acquisition program such as at Pictured Rocks in the upper peninsula of Michigan, it takes about six to nine months just to get ready, even after you get the money. This is because you have to get all your maps and ownership records. Quite often the county maps are inadequate and you have to go to photographic records and prepare a map from aerial photographs.

Once the ownership records are clear, you go to the appraisals and finally to the actual acquisition process.

Whether you are buying inholdings in an existing park, or all the land in a new one, you have to go through the same steps, although it isn't so complicated in a smaller area.

There are new types of land acquisition today. Historically, we thought we had to have everything in fee title. This was just the only way to do it. An owner could have life tenancy but that was about as far as we would go.

We seldom went to condemnation. All acquisitions were on the basis of a willing seller and a willing buyer, reaching agreement on a price which was established by appraisals. Then, along came the Blue Ridge Parkway and the Natchez Trace Parkway, and we began to get into scenic easements. These seem to have been rediscovered recently, but scenic easements go back to 1936. There are bugs in the procedure but is here to stay.

Other concepts under consideration right now include a plan we call "buy and sell back" which is almost the same as a scenic easement. The deed back carries restrictions retaining for the government the protection that they want, namely scenic protection. At Antietam Battlefield we have the authority to do this now but we can sell back only to the original owner, retaining a scenic easement protection for the government. The original owners didn't want to buy back so it didn't work well, but it has promise and will take special legislation to broaden use of the ideas. It hasn't been done yet--just talked about.

There is another angle of the same thing, called "buy and lease back". As an example, I think of Adams National Historic Site in Quincy, Massachusetts. The Old House is on a beautiful street, surrounded by beautiful grounds and trees. Across the street are two magnificent homes with big grounds. But all of a sudden these two homes are for sale. There is some speculation that these sites could go into high-rise apartments, and this would be most unfortunate because of the change in the aspect of environs at the Adams Site. We are not interested in acquiring the other property, we are just interested in keeping it in the kind of use it is now. There is a bill before Congress now which could authorize us to buy a scenic easement or to buy the property outright and sell it back with controls simply to keep it in the kind of use it is now. That is in effect what the scenic easements along the Blue Ridge and Natchez Trace Parkways do.

We get into very complicated procedures when we talk about zoning. The land acquisition legislation at Cape Cod for example is built around a suspension of the right of condemnation of property in the National Seashore if the town in which it is located has a zoning ordinance which has been judged adequate by the Secretary. Or the owner of a home may retain a homesite, not to exceed three acres, as long as the town in which he is located has this zoning. Of course, this depends on the five towns which have all adopted zoning ordinances which they had never had before and it took some time to get these developments by the local town meetings and the town councils.

This particular pattern of zoning was built right into the legislation. We have similar laws for Fire Island, but none of the towns have adopted zoning. At Cape Cod we have issued many certificates of suspension of right of condemnation, but none at Fire Island. The communities simply have not adopted zoning ordinances that we can depend on to control unwise development, so we can move by condemnation if we need to.

The legislation establishing Pictured Rocks National Lakeshore, has zoning built right into it also. We have a lakeshore zone and an exterior buffer zone. We have the authority to acquire everything in the lakeshore zone and we probably will take over very little land in the buffer zone, although it is to be operated in such a manner as to not detract from the attractiveness of the lakeshore zone. A logging company that owns land in the buffer zone is interested in setting up a tract on which they will practice multiple use forestry. This will be part of the interpretive program of the whole region. They will cut on an annual cycle, and hopefully, this can explain to visitors what they cut, why they cut it, how they select the trees they cut, what amount of reforestation is done, what protection measures are necessary, and show the whole picture of multiple use forestry.

The Park Service has the right of condemnation in cases of adverse uses, but this isn't strictly a one agency control. There are a lot of other factors there such as the State, the Forest Service, Fish and Wildlife--all of these plans were worked out before the legislation passed.

The last proposed bill on Sleeping Bear Dunes National Lakeshore was even more complicated. The Secretary's right of condemnation would be suspended on all land not immediately needed for development, when a community has in effect an adequate zoning ordinance. However, if there is no zoning in effect satisfactorily to the Secretary, you still could not condemn land if the owner says he would abide by such zoning even though it was not in effect. This was in the legislation that did not pass.

To go back to Cape Cod briefly, each of the five communities has zoning. We can give land owners notices of suspension of condemnation where their land is not needed for development. It must be maintained in residential use but the owners can sell it, rent it, and pass it on to their children. The intent of the legislation was to preserve the residential character and the typical architecture of Cape Cod. But the odd part of dealing with scenic easements is that a scenic easement usually costs about 80% of fee title so it isn't cheap. And keep in mind that the zoning we are talking about comes through an Act of Congress and then an Executive Order or Secretarial Order. The Directors of the Park Service, Forest Service, Bureau of Land Management, or Tennessee Valley Authority do not have authority to implement zoning on lands that are not Federally administered. Zoning is an idea that goes clear to the Departmental level on land areas that have been designated by prior Acts so that they have identity as Federally administered lands even though ownership status may be non-Federal.

The Secretary can ordinarily condemn for partial rights, but every claimant has legal recourse to try to prove that partial taking removes a portion of his economic unit whatever that may be. We may need to go to full fee title condemnation proceedings and pay fair market appraised value for his land. And, to round the circle, here is where lease back or sell back may be appropriate.

I recall that in Grand Teton National Park, there have been legislative restrictions that appropriations for land acquisition may not be used for condemnation of land. This doesn't prohibit purchase by a meeting of a buyer and a seller; and there is a special understanding that condemnation can be used where proposed land uses are not compatible such as for a junk yard to use an extreme example.

Some states have a very welcome feeling toward a parkway or a Federal park coming in; others don't. For example, the State of Texas bought Big Bend National Park and gave it to the Federal government for a National Park. This harmony is not always there, although generally State governments are cooperative and the local communities may be hard to live with.

Another formula for acquisition of land for open space, and public recreation includes a tax break. This is being explored right now in various states. Owners of recreation or open space land would get a break in the tax structure if they used the land in specified ways.

Another aspect of zoning that I got into up to my ears in Yellowstone National Park involved Yellowstone Lake. In effect I established lake use zones including one for paddle craft only. Motorboats were not allowed in this area. This created considerable furor. You heard Dick Crysdale talk about it the other day; he wrote his masters thesis on the zoning of Yellowstone Lake, and the effect motorboats were having on wildlife.

There are many other aspects of land acquisition in these new legislative formulas we have. One I call attention to in particular, is that increasingly in our Federal legislation we are getting advisory commissions. We have commissions at Cape Cod, Fire Island, Minute Man and increasingly we are working closely with them. The objective is to bring together park management and the local community. We hope that National Parks can be intergrated with their nearby communities with benefits for all. This is an effective form of regional planning. Some public administrators feel this just complicates their operation and, in a way, it does. But on the other hand, it simplifies things too, because of open channels of communication with the community with which you work.

Of all the problems that come up in land programs the one you hear about the most is the escalation of land values. It has been our experience that this escalation of values amounts to about 10% a year. Once an area is authorized, if it takes five years to buy it all, that last piece costs you about 50% more than it would have cost if you could have bought it the first year. This has some very disastrous results.

At Cape Cod, for example, we had a ceiling in the legislation of $16 million that could be spent for land acqusition. We have spent the $16 million so we are broke, but we have only 65% of all the land because of all the land because of this escalation factor. Yet the men who made the study on Cape Cod six years ago were honest people who really worked at this and really knew the values as they were at that time. And, of course, there is no way in America to go back and hold the people to the values at that time.

How many of you realize that Franklin D. Roosevelt at one time proposed that when you bought a right of way for a Federal highway, you should buy it a mile wide. Build your highway, then sell the adjacent lands and there would be enough increment in value to pay for the highway. By continuing this process across the country, you never would have to pay for a highway. The normal increase in land values because of the highway would pay for it. This idea never got off the ground!

And, one factor in escalation of values occurs because a park or a recreation area name is a feature. This makes an attractive speculative situation! We see it again and again.

When we get into a new area in programming funds for buying land, we in effect set up priorities; Zone A, Zone B, and Zone C. It seems logical to start at one side or one end and to buy everything in Zone A first, then Zone B and Zone C. In three years we could have everything!

But there is a program of development that follows right behind the land buying. We establish priorities to control the escalation proposition or we would end with scattered holdings. We would also have an unusuable package for public use and development. And, one firm objective in buying land is to use it as promptly as possible and get public visibility of results from the tax payers investment!

There are other kinds of zones. Thus we have three levels of land urgencies in our hypothetical Zone A above--one would be land we needed because of the resources on it--the things we have to have to be in business. Two would be land needed for physical development and public service. Three would then be land that presently may be in commercial use, may be desirable to continue in public use, and is the real opportunity for buying less than fee title.

For a speaker who began with a disclaimer of qualifications, I seem to have carried on too extensively. However, my goal has been to leave techniques and procedures to your own professional advisors and acquaint you with some of the philosophies and the new concepts that guide a piece of legislation and the land acquisition aspects today. It is a new kind of ball game, but an interesting one indeed!

RESOURCES MANAGEMENT AND OPERATIONS

by

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Safety

As former Superintendent of Point Reyes National Seashore, I learned quite a bit about safety. I took over the area in the middle of summer and the first thing that occurred, I received in the mail a beautiful plaque that certified Point Reyes National Seashore as one of the high ranking Park Service areas in the annual safety contest.

About six weeks later we had a fatal accident on a construction job that was underway--a $500,000 project on roads and utilities. As contracting officer on that job, I was not only responsible for seeing that the job was constructed according to specifications, but also responsible for safety.

Shortly after I arrived at Point Reyes, I discovered out in one of the barns we had acquired in our land acquisition program, an almost new station wagon. The only trouble was, that station wagon was wrecked in the front. I discovered this was the Superintendent's official vehicle. Shortly after it was received, one of the employees was coming back to the park one night from San Francisco, and the car's electrical system failed. The ignition quit, the lights went out, and everything stopped. Fortunately, the man was able to park the car alongside the road. Another car came up from behind and plowed into the stalled Government vehicle and a woman was killed. The Government car was repaired and put back into operation and about two months later, the Superintendent was involved in a head-on collision. That was the condition in which I found the car.

I also discovered that in connection with this fatal accident, there had been filed a tort claim in the amount of almost $500,000. It was still pending and I had the dubious distinction of being Superintendent at Point Reyes when this claim was settled in the amount of $190,000. $90,000 was against the Government, $90,000 was against the Chrysler Motor Company, and $10,000 against a little garage in the town of Point Reyes Station. The garage had the misfortune of checking out this car when it was received by the Government from the manufacturer.

From this, I learned that lack of safety can cost not only lives, but lots of money as well.

As a final blow, about four months ago, I noticed the ranking of the different National Park Service areas in safety for 1965 and 1966. Right at the bottom of the list was Point Reyes National Seashore. I fear some of the responsibility for that sad record was inescapably mine. It serves to stress that safety is a responsibility of the park Superintendent or the Park Manager. This responsibility cannot really be delegated.

If you are going to sell safety to your people, you are going to have to practice safety and believe in it yourself. You must demonstrate it by example. Safety is really an attitude--a frame of mind--a habit. It is up to the Superintendent to set the stage.

There are a few principle areas of concern in recreation and park operation. First of all, you have to be concerned about your park visitors and your park employees. Some of this is largely industrial or on-the-job safety. Concession employees constitute another area of concern. In Yellowstone National Park for example, there are hundreds of seasonal employees which compose a very high hazard group. They are usually young people who are not familiar with the dangers involved with the area, and they are usually not very safety conscious. The National Park Service is also concerned with the industrial safety on contract construction jobs and projects. And, of course, we must also be concerned about the safety and protection of property.

We have kept detailed records on accidents over the years and recently completed a statistical study of fatal accidents in the parks, monuments and recreation areas. It covers the 20 years between 1946 and 1965. I think this gives a good cross section of the kind of accidents you might all be faced within recreation developments. During that 20-year period, we had 1,165,984,000 visits and 975 fatalities, giving us a rate of .83 fatalities per million people. The greatest source of fatalities was water accidents accounting for 47 percent of the total. Motor vehicles accounted for 39 percent, and the last significant category was falls of various kinds accounting for 13 percent. The lesson here is to pay particular attention to water recreation activities and motor vehicle problems.

On age composition, it is obvious the high hazard group is between 13 and 25 years old. They account for 33 percent of the fatalities.

Most of our recreation activities are seasonal occurring in June, July and August--the summer months. These months produced 54 percent of the fatalities.

The ladies are a better safety investment than the men. About 80 percent of the fatalities were men.

Most of the fatalities occurred with in-state or local visitors rather than out-of-state. This can be expected because this group is exposed more to the hazards of the area due to more frequent visits.

On the water accident fatalities, it was split 50-50 between swimming and boating accidents.

Fatal motor vehicle accidents involved mostly teenage drivers in one-car accidents. They were usually speeding.

On tort claims, these 975 fatalities accounted for seven claims during the 20-year period that were allowed, totalling almost $250,000. There were a few claims still pending amounting to about $150,000. I would like to remind you that these statistics only involve the FATAL accidents. We have not even touched the injuries resulting from accidents.

Our Safety Engineer tells us that a reasonable safety goal would be about .33 which figures out to be one fatality for every 3 million visitors.

These are some of the recommendations made to reduce the fatality rate: (1) Encourage visitors to come to the visitor center or contact a ranger for information and advice when undertaking an adventure away from public use areas; (2) more patrol of water areas to reduce the drownings; (3) at entrance stations maps and leaflets should be made available to guide people to information centers; (4) alert law enforcement and patrol are important in reducing motor vehicle accidents; (5) control centers should be established to receive reports of unsafe acts and conditions and to initiate instant corrective action; (6) search and rescue--have a plan of action with trained crews and all necessary equipment to act immediately when a serious accident or situation is reported. It is a matter of organization.

This is only a sample of the 21 recommendations made. Safety is primarily a professional program these days--at least the technical leadership of it is. We have a small professional staff in the Park Service totalling about four people. Two of them are in the Washington Office, and we have a safety engineer in each of our design and construction offices to take care of safety matters in the design of facilities.

We have tried for many years, without much success, to develop a professional safety staff in our regional offices. However, we have developed a stop-gap arrangement that has been fairly successful and it might have some application for other agencies. We have hired, what we call "safety assistants" which are usually retired Park Service people, who are available when we need them. We are picking up experience and giving them specialized training and use them for three months in the summer. They go around from area to area working with the area personnel on trying to improve safety matters.

The real backbone of the Park Service safety effort is located in the parks, monuments and recreation areas. The group in these areas carrying the real burden of the job is the Park Safety Committee. This is one of the most active committees we have in most parks. On that committee, we try to have representation from each division of the park operation. This committee meets frequently and is responsible for reviewing safety aspects of park operations, making recommendations for corrective action to the Superintendent, reviewing safety reports, etc. Each park has a documented safety program.

Our Chief Safety Engineer has developed what he calls the "Five E" approach to safety. They are: Effort--it takes effort to get good safety programs going and it is everybody's job; Enlistment--(or enthusiasm) you need enthusiastic acceptance; Education--this includes training sessions and conferences; Engineering--to build safety into the design of facilities; and lastly Enforcement--of regulations and rules related to safety.

Safety activities--these are a few of the things we do in the parks. Training sessions and conferences, crew briefings, special courses and so on, first aid--our rangers are all qualified in basic first aid and we attempt to get them qualified in advanced first aid as well.

In our informational brochures, we try to get across the more important safety messages in regard to coming into the park areas such as "Be careful of the bears" in our Yellowstone National Park leaflet. Visitors are told not to feed the bears. While not altogether successful, it is one means of getting the message to the people.

In our interpretive presentations, the naturalists give the visitors the word on things to be careful about and precautions to take.

One of our big problems in parks is visitor attitude. People coming into the parks are there for a vacation and they have a carefree attitude, and the last thing in the world they are thinking about is safety. It requires special effort to get the message across. On water recreation safety, obviously special measures are needed there, because this is where most of your fatalities occur. Where swimming is a major activity, we try to confine it to designated supervised beaches. Boating also has its share of fatal accidents and injuries. By informational leaflets and programs, we try to teach people how to properly use boats, and to develop safe boat operating procedures. We cooperate in training programs and safety inspections with the Coast Guard.

Wildlife is always a problem. Where you have dangerous animals, people have to be warned. It isn't just a matter of the animal being dangerous; in certain cases some of the small animals are just as dangerous and cause even greater problems than the big animals, with some of the diseases they carry--rabies, bubonic plague and the like. Park managers have to be aware of these problems and develop a cooperative relationship with other agencies, local, state and federal, to be sure proper supervision is given.

On mountain climbing, we developed a few procedures designed to promote safety there. We sometimes require permits to be issued for the more hazardous technical climbs. Sometimes an inspection is required to determine adequacy of qualifications and gear to undertake a difficult climb. For climbs that are particularly hazardous, it is sometimes necessary to require that climbers provide themselves with a backup party.

There are some miscellaneous problems you must consider here such as conflicting uses. For example, any time you have bicycle riders on the trail with horseback riders, you have a hazardous situation.

Tree hazards are responsible for a few injuries and even some fatalities, usually occurring in a campground from fallen trees and limbs. Every area has got to develop emergency plans to take care of emergency situations such as floods, fires, hurricanes and so on. This is another thing you must consider.

You've all heard that accidents just don't happen, they are caused. This is usually true. But, also true is that safety doesn't just happen either. It is the result of careful planning and alert management.

Concessions

This business of concessions is probably responsible for more park manager headaches than any other facet of park operation. Wherever you get private interests and public interests and this business of profit motive, you have ample opportunity for problems, and conflicts, and sensitive situations.

I think it might be of interest to give you some facts and figures outlining the size of the concessions operation at the Federal Government level. The Bureau of the Budget has recently completed its study on concessions for Federal agencies. It has some interesting information. There are six agencies that are concerned in a major way in recreation concessions. These consist of the Forest Service, Corps of Engineers, Bureau of Sport Fisheries and Wildlife, Tennessee Valley Authority, Bureau of Reclamation and the National Park Service. In the aggregate, in 1964 and 1965 there was a total of almost 2,500 concession contracts of various kinds that were active. Those 2,500 contracts represented a capital investment of almost $300 million dollars, in private money.

The gross receipts in 1964 and 1965 came to a little over 136 million dollars and on this business there was a net profit of 6.3 million dollars. And there was some return to Federal agencies involved too, in the form of franchise fees, rentals, permit fees, etc., to the tune of about 2-1/2 million dollars. Now that is a pretty big business.

However, big as it is, it is still inadequate right now to care for the needs. This same study by the Bureau of the Budget indicates that the need back in 1965 for additional investment amounted to another 340 to 390 million dollars. These figures are generalities, I am sure, nevertheless they give you an index as to how big this business is. Unfortunately I do not have any comparable figures for the state, county and local operations, but I am sure that when you take these as an aggregate across the country you are dealing with an even bigger business than what I have just given you.

It seems to me that in planning parks and recreation areas one of the things that frequently is overlooked or given inadequate attention is this business of concessions. Frequently it seems that we put our emphasis on planning the roads, visitor centers, headquarters establishments, and similar facilities. Concessions is either completely overlooked or handled badly. I think this is quite unfortunate because when we do this we frequently lose control over this important part of park operations. Other interests may determine the need for concessions and make the decisions as to where these concessions are going to go and what kind of concessions are going to be involved. Such decisions may be made on the basis of the business opportunity, rather than the need to serve park visitors. I think this is unfortunate, because by all means the presence or absence of concessions in an area certainly should be determined by the needs of the visitor, not merely the opportunity to make a profit. Visitors may need overnight accommodations, restaurants, so on, to permit them to enjoy the area and its resources, and if so, this is a need that should be satisfied. But, if it is simply a matter of a business opportunity, in a park where there are lots of people, then, personally I do not feel this is an adequate justification for a concession operation. I thought of the Forest Service site we visited at Rayburn Reservoir. A concession building had been built there by the Forest Service for private industry to take over. By the time the facility had been completed and was ready for use, there was no need because private industry had moved in just outside of the area. The first thing then is to decide if you need concessions; and if you decide you need them, then you must consider if the concessions are needed inside the recreation area or will be provided outside the area. You would have to rely on private interests to develop facilities outside the area. The emphasis of the Park Service in recent years has been to encourage private industry to provide these facilities outside the parks. We feel this is better conservation because it takes commercial activity outside the park and turns more of the park over for its intended purpose.

Some of the concession types and trends need a few words. The Bureau of the Budget study tells us that the concession business is essentially a small business. Seventy-one percent of the concessions operations at the Federal level would be classified as small business involving total assets of $50,000 or less for individual concessions. Only two percent of the concessions are considered as being big business with total assets of a million dollars or more. Most of these big business concession operations are located in the National Parks. The National Forests, on the other hand, have by far the largest number of concession contracts. Out of a total of 2,500 the Forest Service has about 1,700. The Forest Service concessioners were bringing in a gross of about $16 million a year. The Park Service, on the other hand, had only 250 concessioners which were grossing about $67 million a year.

In 1965 the Park Service had about 12 concessions that were each bringing in a gross of $1 million or more. One grossed over $12 million. These are the big diversified concessioners which are providing overnight accommodations, restaurants, transportation, general merchandise, etc.

An interesting trend in recent years has been the fact that big corporations are getting into this concession business more and more. This is due to a number of factors, some which are pretty obvious. Parks are more popular now than they ever have been before; and visitors seem to have more money than ever before. Wherever you get concentrations of money and people there is a business opportunity. There are some other reasons too, at least in the Park Service. Up until a couple of years ago the concession business was somewhat uncertain. The rules were administrative rules, and they were subject to changing interpretations which tended to discourage private business. Two years ago, a law was passed which took all of these administrative rules and procedures of the Park Service and put them into Federal law, with Congressional authority. This has stabilized the picture quite a bit and made it more attractive for corporate business to come in.

As far as types of concessions are concerned--you can sell anything inside of a park that you can sell outside a park. You will find everything including motels, cocktail lounges, restaurants, gift shops, etc. In rentals--you will find bicycle rentals, boat rentals; over in the Sierra parks you can rent burros for $5 per day, which is a big help to camping groups going back into the back country. So here is a way that concessions can help in developing use and appreciation of the back country, and wilderness.

Concession operation of recreational facilities themselves, of course, is pretty well established; everything from ski tows to miniature trains.

Some of the new things that are coming in include concession operated campgrounds. Already the park service has turned over one or two campgrounds for concession operation. I think we are going to see this trend continue in the future. We have a mountaineering school operating as a concession in Grand Teton National Park. This past summer I spent a marvelous vacation in the White Mountains National Forest up in New England, and I saw an interesting concession arrangement up there. I spent about four days hiking along the Appalachian Trail up on top of the Presidential Range and up there a private organization, the Appalachian Mountain Club, from Boston, Massachusetts, has constructed and operates a series of hiker huts along the trails where meals and bunks can be obtained. I do not know the precise business arrangements involved, but I am sure the Forest Service has worked with this organization in issuing permits. It has had very desirable affects and it is encouraging excellent recreational use of that country.

In Washington, D.C., we have turned over a traditional Park Service activity to a concession. This is for interpretive tours around the mall area. A contract was awarded several months ago for this service. This tour did not involve any trains. The contractor is Universal Interpretive Tours, the corporation giving tours through the Universal movie studios in California. Unfortunately, we ran into some legal problems so the contractor never got underway.

Another type of concession can be illustrated at Point Reyes where a concessioner operated a mobile refreshment stand mounted on a pickup truck. I had been brought up in the national park tradition and this truck mounted refreshment stand did not seem quite right to me. However, I came to appreciate that mobile arrangement as time passed. I thought it fitted in very well with the recreational type of use we had at Point Reyes National Seashore. It did not take up any space permanently. It followed the crowds and took the service to where it was needed. It had some very fine advantages for that kind of recreational atmosphere. I am not sure I would care to see it in the middle of Yellowstone, but at Point Reyes I was sold on it.

Let's say a few words about concession developments and management. As far as development of concessioner facilities are concerned, they follow a basic pattern. At one end of the spectrum you have construction and development of facilities entirely by private capital. This has not been used to any great extent except in the Tennessee Valley Authority country. I understand the TVA has the authority to sell Government land there for certain specified purposes. One of these purposes is for the development of facilities and accommodations for recreational users. There is a clause in the deed that the land must be used for public recreation purposes. This prevents people from buying land and trying to subdivide it later.

At the opposite extreme, you have concessions and facilities that are developed by the operating agency itself. Most frequently you find this pattern at the State park level. A good illustration of this would be in the State of Oklahoma. Several years ago, Oklahoma embarked upon an ambitious program of constructing lodges in its state parks financed from the sale of revenue bonds. The lodges are there today and although there have been financial difficulties, these lodges have contributed greatly to the high quality of the Oklahoma State Park System.

The National Park Service, in some situations where the area is not attractive for private industry and yet there is a need for services, may construct the concession facilities and make them available to private operators under concession contracts. The usual pattern, however, is a mixture between private and public investment. In the Park Service we usually put in the roads and parking lots and utilities; then we invite private industry to come in and construct the buildings and to furnish and equip these buildings.

In management the situation can be more complicated. In that you can find just about any number of combinations. You have got essentially a private management-private ownership arrangement on the TVA. The Corps of Engineers uses a lease arrangement. In the Park Service our usual procedure is management by private industry pursuant to a concession contract, or in the case of small operations, a concession permit. Then you may also have management of concessions, restaurants, hotels, etc., by the operating agency itself. This is illustrated in the Oklahoma State Parks. The state notonly built the facilities and lodges, but I understand right now, in some cases, anyway, the Oklahoma State Parks Department is actually operating them. The people serving you in restaurants, registering you in hotels, etc., are state employees.

And then there are a few unusual combinations. Several years ago, the Park Managers in the Texas State Parks were also, in many cases, the park concessioners. A great deal, if not all, of the income of the Park Manager came from his operation of the park concession. So here was one man trying to fill two positions at the same time. If any of you have had experience in this field, I think you will agree it is really too much for one man to do.

After it has been determined that a concession is needed, the next step is to get a concessioner. To do this, we issue what we call a concession prospectus. Essentially, in contract terminology, this is an invitation to Bid. The prospectus describes the area involved and what facilities the National Park Service is interested in having constructed. It then proceeds to outline the rules and regulations and policies under which the concession would be required to operate. The prospectus is usually drafted right in the field area, polished up in the Washington Office and then issued. We give wide notice in all the newspapers in the area about this business opportunity, and also maintain a concessioner application file, which contains the names and addresses of individuals and operators, who may be interested in business opportunities in the parks. We are obligated by law to see that all interested parties have an opportunity to make an offer pursuant to a concession prospectus. However, an existing operator does have what we call preferential rights. If he has performed in a satisfactory manner, he is given preference in the renewal of a contract.

In selecting a concessioner there are two main factors to consider--experience and financial capability to undertake the operation. Of lesser importance is the amount of franchise fee offered. On franchise fees, we have developed a formula based upon a percentage of the gross receipts. It varies according to the different kinds of commercial operation and the investment required and profitability. In addition to that we also charge a fee for the use of government buildings and facilities.

There is another arrangement here that is a very difficult concept to understand, and that is what we call possessory rights. It is difficult for me to expalin, but I might start out by asking a question. Let us suppose that the XYZ corporation builds a million dollar motel at Grand Canyon National Park. Who owns that motel? The answer is that the Government owns that motel. The XYZ Corporation does not, yet the XYZ Corporation put a million dollars into that motel. This does not sound like a very good business arrangement at all, so we have developed this concept of possessory rights. Possessory rights really amount to the right of the private investor to be reimbursed for his capital investment. It amounts to all of the incidents of ownership, except ownership itself. This has been a difficult concept for the business community to accept, and it has been one of the problems that concessioners have encountered in trying to get to borrow funds. The bankers just did not understand this thing; there was not anything they could foreclose on. But now it has been reinforced with legislation, and you can now buy possessory rights, sell possessory rights, and borrow money on possessory rights. So it's a pretty important thing.

Then we want to touch on this item of exclusive rights. Usually our concessions are based on exclusive rights, where one concessioner will be given exclusive rights to provide a certain facility or a certain service to particular areas. It is all spelled out in the contract.

Subconcessions are not a particularly good way to do business and have not provided a very satisfactory arrangement. It is a form of absentee management, and we discourage it. One way we discourage it is by requiring approval of any subconcession agreement. You cannot enter into it unless the National Park Service approves it. Furthermore, we require that 50 percent of the fee the subconcessioner pays the prime concessioner go to the Government in addition to the regular franchise fee.

One other item--the matter of rates and approvals. Establishing approved rates for services can be a real headache. This includes the prices on everything. Let us take a look at a fact sheet. There is everything from motel rooms, to trailer spaces, to boat storage, to motor repairs, to hamburgers. It even includes prices on liquor.

Just a word about prices for food--prices on food are approved on the basis of comparability with prices at similar commercial operations around the area. There are some additional factors that are taken into account, including the seasonal nature of the business, isolation and proximity to supplies, and such extra costs of doing business as the need to provide housing for employees.

The Park Manager must have a close working day-to-day relationship with the park concessioner. In a real sense, this business of managing a park and also providing commercial services to visitors is a working partnership between public and private interests. There are lots of opportunities in the course of your work to develop this kind of relationship. One of these is in master planning--which should be a joint operation. Master planning is not a one-way street for just the operating agency to be engaged in. When private industry is going to play a part in what you are planning, it is well to have their participation in the early planning stages.

There are lots of inspections made of concessioner facilities--sanitation inspections, fire inspections, safety inspections, etc. By all means, these should be made in corporation with the concessioner. Work closely with your concessioner on informational and advertising literature to be sure his needs and yours are properly described.

As a final item there is the matter of complaints. It seems to me I spent much of last summer reading complaints and reviewing difficult answers.

When possible, complaints should be taken care of and resolved right on the ground. Any time a complaint gets to the letter stage sent to higher authority, there has been a failure at the park level. If you are operating a park, make every effort to resolve these complaints when and where the problem occurs.

RESOURCES MANAGEMENT AND OPERATION-VISITOR PROTECTION

by
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National Park Service

Resource managers must extend their thinking and management techniques beyond the usual conception of resources management. The visitor who uses the managed resource must be given prime consideration. From a resource management standpoint, visitor use, or misuse, could be simplified if the unappreciative and unwanted visitor could be "locked out" of an area. This is impossible, however, because no one has had the infinite wisdom needed to prejudge a visitor before he enters the area. Therefore, visitor use and impact, involving unpredictable situations far removed from normal routine, must ever be present in the resource manager's mind.

Personally, I don't like the words "visitor protection" as they are used in most area management plans. We are now starting to use the words "visitor activity management". Actually, we in the National Park Service, have a Visitors Activity Management Branch in the Division of Resources Management. Visitor Activity Management to me seems more appropriate when we think of people and their relationships to recreational areas.

Recreational Areas are established and set aside for the use and enjoyment of people. Facilities are provided to make this use more meaningful and enjoyable. In retrospect, the visitor is an "invitee" and, as such, he must be given the attention and consideration that such a title warrants. His activities must be managed in such a manner and by such means, whether it be by regulation or direction, as will protect him from himself, his neighbor, or the natural resources of the area.

Visitor activities management, too, is action--it is information, guidance and protection to the visitor; it is law enforcement; it is a directed and controlled use of a resource. It, too, demands a plan or plans before it can properly be the detailed portion of an area management plan that it must be.

Visitor use of recreational areas shows no signs of tapering off. In fact, it is increasing by leaps and bounds. It has been estimated that by the year 2000, some 32 years from now, the United States will be a nation with 300 million people having added the equivalent of the total population of 10 New York cities, or 54 Washington, D.C.'s. It is also estimated that by the year 2000 every American will have 30% more free time. Visitor Activity Management is here to stay.

Most people are in a very strange environment when they visit a recreational area...particularly those areas in the mountains and deserts where the environment is entirely foreign to that visitor. Generally, regulations pertaining to these areas are quite restrictive and readily misunderstood. Managers should be aware of this.

One major land management agent has a law enforcement policy which seems most applicable in recreational area management. It is: "to enforce all laws, rules and regulations that lie within the scope of its legal jurisdiction. All law enforcement actions must be handled with judgment, dignity and intelligence, and applied as uniformly as practicable with regard to the particular circumstances involved in each violation."

But when you stop to think, there can really be no policy in law enforcement since the "law" itself is the policy--not be changed by an individual whim, only by legislative action. There is, of course, no question but that enforcement of the lesser statutes and petty offenses does not in all instances entail arrest of the offender. In such cases, the law condones on-the-scene judgment by an officer of the harm done, the attitude of the offender and the decision to arrest or not to arrest, on the assumption the officer is a trained servant of the law and for the general good, may arrest the offense and not the offender. We must realize, too, our courts would bog down if formal arrests were made for all violations of the law.

What about the serious offense? Generally, special law enforcement powers have been vested in area managers and certain of his employees which make it their duty to enforce the law. This they must do, there is no way they can get out of it.

There is, however, another duty resident in these powers which provides that the public is entitled to be treated with utmost courtesy and considerations at all times. Usually a law can be enforced more effectively with kindness and courtesy than by any other method.

Law enforcement in recreational areas is most demanding upon recreation managers and their employees. Crime has escalated more in rural areas than in metropolitan areas, and it is obvious that we are getting increased numbers of visitors in recreational areas, with larceny in their hearts rather than the love for the out-of-doors.

As mentioned before lawlessness has come to the field. Records show that serious offenses such as murder, manslaughter, rape, robbery and burglary, larceny and auto theft have increased at an alarming rate. Dangerous and illegal drug peddlers are now working in the national parks. Organized gangs of thieves have hit the large recreational area parking areas. Unfortunately, those who prey on the public at home have found him to be an easy mark at his weekend retreat and in his summer vacation spot. Recreational area visitors on care-free vacations are not likely to be overly security conscience of their person, and are ideal prey for the criminal.

The importance of an adequate management program assuring the effective protection of persons and property and enforcement of applicable laws and regulations cannot be over emphasized. Special recruitment of trained and qualified personnel, additional supervised training, special equipment and cooperation with local law enforcement agencies are all a part of the program.

Up to this point, I have emphasized law enforcement as a key factor to visitor activity management. Law enforcement, however, is only Chapter I of this program. Chapter II must deal with the visitor and his uses of the area resources and related facilities.

Again, records show that use of recreational facilities, whether they be trails, campgrounds, motels, hotels, or water oriented developments, are increasing at a rapid rate. Activities, such as mountain climbing, water sports, skiing, hiking, etc., are paralleling this use increase. Visitor activity management in the true meaning of the words comes into being with the attempted control of what the area visitor does.

When considering visitor impact on a given area, one can readily see that certain restrictions must be imposed--not only to protect the area, but also to protect the visitor. Such things as speed limits on roads, length of stay in campgrounds, boating regulations, mountain climbing restrictions, wildlife policies, and etc., must be a part of the overall visitor activities management program. The welfare of a visitor must not be overlooked.

Regulations pertaining to the mentioned activities are a must. Regulations, however, are ignored. Nature in the raw is seldom mild. Accidents happened and visitors are killed or injured. The manager and his staff must be prepared to handle all emergencies.

Visitor activity management is big business. The actual visitor use is well determined by the area purpose. I think you will all agree that there is authorized and unauthorized visitor use. Some of the great problems of the Park Service deals with this unauthorized visitor use. People get killed, and people get lost.

I would like to think that good visitor services are a means of area protection.

What are some of these visitor services we can give to protect the area and the visitor? One of the most important ones is information. If we give the visitor adequate information, we can partially solve our problem. We can give this information by many means. One is entrance stations, or visitor contact stations. It would be interesting to know what has happened at Sam Rayburn Reservoir, making a comparison between the Forest Service operated area and the one managed by Corps of Engineers. I noticed the Forest Service had a man at the entrance talking to people or checking their entrance permits...I am wondering if that was a visitor contact, or if this individual was actually giving the visitor the information he wanted. Again, it would be interesting to see what has happened in these two particular areas.

Visitor centers are a major point for giving information to the visitor. This type interpretive device should be geared towards the visitor and the area. Signs are important. They are a device that can be utilized to dispense information. The concessionaires can dispense information. Information can be provided at trail heads.

Another thing we must consider is proper staffing to provide better visitor management. I mentioned before that the visitor is an "invitee" to an area, and he has the right to be protected. We have a responsibility there. He has to be protected from the unwanted guests, and the natural resources of the area...the incident that took place in Glacier National Park a short time ago is an example. We are having some difficult times over that grizzly bear incident!

We must consider the area itself as far as the visitor is concerned. The visitor must be informed of the dangers of the area--mountain climbing, streams, and other things related to the natural resources that might affect his safety.

We've got to protect the visitor from himself...from the possibility of accidents which he causes. The visitor in all of these areas is supposedly given sufficient information and he should know what to expect.

We would like to think, going back to the grizzly incident, that, as a Federal agency, we are not liable. I wish I could confirm this! This entire incident is being investigated to determine what the liability of the government might be. The National Park Service has received about 500 letters in regard to bear injuries. (As an aside it is not possible the bears will be exterminated!)

Law enforcement certainly is a must in visitor service management. It must be provided by the area personnel seeking cooperation with surrounding agencies (county, state and municipal governments). As resource managers, I urge you to seek cooperation with your local agencies. It helps law enforcement and public relations, and, of course, assists in the specialized law enforcement cases.

We had an interesting situation in Grand Teton National Park last year. It involved the use of LSD and marijuna. It is evident that this is becoming a problem in national parks now. We received word of the situation in Teton and, made three or four arrests. As a result of these arrests there were 30 to 40 additional arrests made in the town of Jackson and, as a result, the drug ring was broken through cooperation. In processing our case we had to go to the State regulations for charges pertaining to the offense. Those involved were arrested on disorderly conduct charge, so they could be tried by a United States Commissioner. An interesting highlight to this is that one defendant's case is being appealed on the basis of inhumane treatment by the Park Rangers. And it all stems from the fact that somebody heard the Park Ranger tell the U.S. Commissioner that he would like to make an example of this case!

Another thing which we are running into, and I think you will run into, too, is this authority of the US Commissioner. We are told by our solicitor that the US Commissioner does not have authority to try cases in areas having only proprietory jurisdiction even though the commissioner has been appointed specifically for the local area. An interesting thing on that--there is now a bill before Congress which, if it goes through, should correct that situation. This bill is called U.S. Magistrate's Bill, and, in essence, would do away with all commissioners and would probably provide for their reappointment as U.S. Magistrates, thus enable them to hear all cases resulting from crime committed on government reservations regardless of type jurisdictions. The bill has passed the Senate and it is before the House. Everyone is predicting it is going to have a rough time before final passage.

In closing I suggest that everyone think of the importance of good law enforcement. I also suggest that enforcement people take advantage of some of specialized law courses. ne courses are available all over the country; universities have short courses; many of the local law enforcement agencies have them, and the FBI is available. For the first time we in the Park Service are putting on detailed law enforcement courses at Grand Canyon and Harpers Ferry. We are fortunate in having some of the best qualified experts in the country to assist us.

"Let us proclaim a creed to preserve our national heritage rights and the duties to protect these rights. The right to clean water and the duty not to pollute it. The right to clean air and the duty not to befoul it. The right to surroundings reasonably free from man made ugliness and the duty not to blight it. The right to easy access to places of beauty and tranquility where every family can find recreation and refreshment, and the duty to preserve such places clean and unspoiled. The right to enjoy plants and animals in their natural habitats, and the duty not to eliminate them from the face of the earth." So said President Lyndon B. Johnson in his message to Congress on February 22, 1966.

Gentlemen, to me this little message says much. I see it as a major objective for all resources managers.

Never before has man been so at odds with his environment as we are today. Seemingly, these odds become greater with each passing day. We are seeing the face of America change--industrial expansion, move to urban centers. Where will it all end? No one knows.

This we do know, however, the United States has become aware of its rapidly diminishing resources. It has become aware for the need for resources management. She is aware that her rapidly expanding population is in need of outdoor recreation to the extent never before known by man.

The picture is not pretty. It does, however, represent a positive need for action if our remaining natural resources are to be salvaged and protected. We can no longer afford unnecessary wastes of living space and natural landscapes. We, as public servants, must work together to save enough space for all our people. Resources management suddenly has reached a new height. Never before has it meant so much to the welfare and happiness of a nation. Appreciation of the out-of-doors--the national forests, national parks, state parks, wildlife refuges, etc.--is more apparent now than it ever has been before.

The tremendous impact on the recreational areas of our country has magnified the need for proper management of the areas concerned. Henceforth, this management can no longer be passive, it must be active.

Resources management in the United States is not new. Theoretically, it came into being with the establishment of the various land management agencies. True resources management criteria were slow in coming; the "protection and let-nature-take-its course" concept was, for years, the guideline of the National Park Service. Protection was anonymous with management and involved a lot of emotion and sentiment. Forces of good would supposedly always win out over forces of evil.

The objective of "management through protection" was geared towards the preservation of naturalness. Over-protection, or selective protection, resulted, and nature did not get to take its course. Unnaturalness resulted. Good animals were protected from bad animals. Animal habitats were protected from natural fires. Forests were protected from insects, diseases and fires. Spectacular plants and animals received favors at the expense of the less spectacular. The result: unnatural complexes, changes in natural plant succession patterns, over-population of ungulates, and underpopulation of predators.

Where do we stand now? That is a good question. Where do we stand now? The Wilderness Act, the Leopold Report to the Secretary of the Interior, the recreational area demands placed upon the state and federal agencies, and the overall meaning of outdoor recreation have made resource managers more acutely aware of their responsibilities. These same managers also have been made aware of a need for goals and objectives, and for guidelines by which these goals and objectives might be reached. Recreation area management is now a must.

All recreational areas, regardless of size, must have a primary purpose. Management, in its proper context, provides the only means of assuring that the purpose of a given area has meaning.

Management is an activity--an action program designed to achieve preconceived objectives. Management is not passive. Management is action--or in some instances, inaction--inaction when action is detrimental to an overall management program.

There must be a reason for the presence or absence of action in management. All management activities need, and must receive positive guidance or direction.

The objective of management is to achieve or maintain a desired resource condition in accordance with the purpose of given areas. One of the interesting things that has faced us very recently is a definition of the term "resource". Several individuals came into our Washington Office and asked us just exactly what we meant by the term "resource". We looked through a lot of literature and found resource mentioned in many different ways but we couldn't find a definition that the Park Service or anybody else had coined that seemed to meet our needs, so we came up with one and here it is: "The inherent, natural and cultural assets and characteristics of any given area."

I think of a natural resource as the plant, animal, mineral hydrological and earth form singly and collective as they composed the scenic landscapes.

You might think of recreation as a resource Is it, or is it the use of a natural resource? These are questions that we get all the time.

Cultural resource: The historical and archeological structures and sights and scenes inherent in the area concerned.

In going into the meaning of resources management, I would like to give a very meaningful definition that came from the first world conference on National Parks that was held in Seattle in 1962. It is "Any activity directed toward conceiving or maintaining a given or desired resource condition in accordance with a documented plan, formulated to accomplish the purpose established for the area." Resources management does not mean keeping an ecosystem static. Rather it means that an area is managed to provide for natural processes to continue; the ecosystem is not disrupted. We have to consider that the human element is constantly on the sideline here. We were talking about turning back time...I would like to read a statement the Advisory Board made to the Secretary. It speaks of the goals of park management for the United States..."As a primary goal, would recommend that the biotic association within each park be maintained, or where necessary, recreated as nearly as possible in the condition that prevailed when the area was first visited by white man. A National Park should represent a vignette of primitive America." Then the Board went on to say "restoring the primitive scene is not easily done, nor can it be completely done. Some species are extinct. Given time, a eastern hardwood forest can be regrown to maturity. But, the chestnut will be missing and so will the roar of pigeon wings. Colorful drapanid finches are not to be heard again in the lowland forests of Hawaii, nor will the jack hammer of the ivory bill ring in the southern swamps. The wolf and the grizzly bear cannot readily be reintroduced into ranching communities, and the factor of human use in the parks is subject only to regulation, not elimination. Exotic plants, animals and diseases are here to stay. All these limitations we fully realize. Yet if the goal cannot be fully achieved, it can be approached."

Before discussing the purposes of management, or the goals of management, I would like to divide-recreational areas into three general categories: natural, historical and recreational. (I also have others listed such as wilderness). In doing this, we then can come up with some positive goal for each one of these area categories.

I read you the objective for a natural area. Right now, though, I might mention the "wilderness area" aspect...of a natural area. The goal as we see it here is the maintenance of natural biotic associations, natural phenomena and ecological processes in an area where the earth and its community of life are untrammeled by man. Man is a visitor, not an integral part of the area.

What about our historical areas? The goals for an Historical area; the maintenance, and where necessary, the restoration of their sources, and the maintenance of the biotic associations necessary to preserve the historical integrity of the area. Here we are dealing with history; exotics can be present, and outside influences can be in evidence. The goal should be to return the make up of the area to as it was at the time it was significant in history. One of the most important considerations is its use as a recreational area.

We think of the goal for a true recreational area as the maintenance of natural and cultural resources in a manner to provide maximum opportunities for recreation consistent with the purpose and the intent of the area. Here, we naturally get involved with many things because of positive guidelines that were set down by enabling legislation. Here again, how are you going to provide for recreation and still preserve the resources? A recreation area is an area that has been dedicated to recreational use.

Back to resources management: We must realize we can't preserve a living thing but can maintain and perpetuate the ecosystem of which this living thing is a part; therefore, we need to establish what our own objective is and then go on from there.

Every area must have a resources management plan. The resources plan must contain the area's purpose. It must spell out why the area is there and why it was established. It must also provide a complete description of the area--topography, adverse uses, climate, soil conditions, evaporation rate, vegetation, everything possibly available. It must contain the area's management objectives. In terms of overall management, what are we going to do with the ecosystem. What ecosystem is present? What are the needs for research? How do we know what we are going to do in an historical area? How do we know the condition of the ecosystem that exists right now? To me, research must provide needed answers to determine resource management objectives.

CREATING A NEW TOURISM-RECREATION ENVIRONMENT

by

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Today's mass recreation-tourism-travel has outmoded our present ability to design and build for this specialized and complicated phenomenon. Former concepts of parks, recreation areas and resorts were adequate when relatively few people had this money, time, mobility and desire to participate. Government agencies responsible for parks could stand off from commercial enterprise and vice versa. Now the pressures from users is so much greater; government and private development are in much tighter juxta position on the land; and thousands more pieces make up the development puzzle than in former years.

Therefore, an entirely new approach is in order, one which can be applied to larger parcels of land and more complete recreational complexes. Any new approach must meet several important objectives. 1. The users of recreation-vacation-travel sites must obtain satisfying experiences, measured by each individual on his own terms. 2. The owners and managers of land resources, labor and capital improvements must be able to obtain their rewards. For example, governments must meet their legal and social responsibilities; private enterprise must make profits. 3. Finally, and concurrent with the above, fundamental land resource assets must be perpetuated. Even though they apparently conflict, all these objectives must be pursued if any one is to be met.

Observation and study of this problem over a number of years have revealed a series of facts important to the redesign of tourism-recreation regions. Actually these are more like conclusions and fundamentals and in several instances vary from popularly held opinion.

1. In all tourism-recreation activity, attractions come first. Unless there are things to see and do, there is little reason for providing accommodations or other commercial services. The creation of more attractions increases the need for services and facilities, commercial or otherwise.

2. Attractions derive their power from both intrinsic characteristics and man-created influences. More and more emphasis is being placed on a consumer commodity approach. We want to feel that we are getting our money's-worth.

3. Attractions vary in type as they are within, near or remote from communities. Some need the urban or suburban locations whereas many require rural or remote settings.

4. The demands on long-stay attractions vary from those on short-stay attractions. Destination attractions, for example, must be able to

withstand repetitive use by the same people whereas transient activities depend on volume usage by new increments of travelers.

5. Vacationist's images of attractions are as important as the things, themselves. Psychologically, travelers bring as much to attractions as the attractions give to them.

6. Vacationists rate these images according to their own individual value systems. Therefore, resources are not attractions, per se. Two values ranking high today are the beautiful and the historic.

7. Attractions vary greatly but do have common characteristics. Successful attractions are well-understood by the visitor, magnetic, rewarding, created, influenced by ownership and management, and are part of the surrounding environment.

8. Successful attractions are bunched. Few can stand alone; most gain by grouping with others at attraction focal points; heavily influenced by modern transportation systems.

9. Attractions may be founded in other than a natural resource. An historic past or a completely synthetic base may serve equally well as a foundation.

10. Site preemption by uses other than recreation is a problem today. Industries, businesses and other uses which can operate equally well on alternative sites should not usurp prime recreation sites.

11. Attraction success depends on more than the feature alone. The setting in which the attraction is embedded and the nearest service community are equally vital.

12. Attractions become available as access is given to them. The design of transportation corridors is critical: airways, waterways, highways; may need to create new ones for recreational uses.

13. There are three key decision-makers: commercial enterprise, government and non-profit organizations. Their policies differ even on the same land resource and usually their decisions are made independently.

14. The users (tourists, vacationists, recreationists), however, see total development as consumers. They are the only ones to put the system together. Too frequently this is ugly, inefficient, uncoordinated and often does not utilize fully the potential of an area.

Therefore, if private enterprise is to make the most profit and provide maximum service, if governments and non-profit organizations are to meet their social obligations, if visitors are to receive greatest staisfactions, and if the basic resource assets of regions are to be conserved, some very powerful and comprehensive steps must be taken. Really this demands a complete redesign of the total tourism-recreation environment. The thesis of this proposal is that it is possible and highly desirable to begin with the existing environment, natural and man-made, and intentionally remold it in a direction most beneficial to all segments. Vital to this remolding of the environment--the creation of the vacationscape--is the implementation of a total design scheme. Following are the essential parts of such a scheme.

1. Establish a region's geographic position. It makes for quite a difference whether or not a region is already in an established travel-flow pattern. Study of a region's location relative to mass markets, transportation routes and compatible travel factors can reveal much about its development potential.

2. Research the tourism-recreation potential. This requires intensive as well as broad examination of the following aspects of a region:
    a. It's natural resource base--the characteristics of its vegetative cover, its climate, its topography and soils, and its wildlife;
    b. It's historic, social and economic development--the sites, buildings, and artifacts relating to important events of the past;
    c. It's present land use pattern, especially that of existing communities--relative position of business, industry, agriculture, residential, cultural and other areas;
    d. It's present level of tourism and recreational development including qualitative as well as quantitative inventory of attractions, services and facilities.

3. Synthesize the research findings. In this step the results of the land, economic, tourism and historic research are brought together. This reveals their meaning in terms of where attractions might be developed, what they might be, and the relative assets and liabilities of the communities and surrounding areas. It places present development in relationship with potential expansion.

4. Apply a regional development concept. A tourism-recreation region can be conceived of as made up of three main parts: community-attraction complexes, circulation corridors, and the non-attraction hinterland.
    a. Attractions could be designed as tripartite units: the feature preserved, protected, enhanced; the setting creating the proper psychological and physical approach; and the surrounding area offering the supplementary services and facilities desired by visitors. This forms the community-attraction complex.
    b. Attraction development could be based on resource findings

Avoid site preemption by developing indigenous attractions first. Synthetic attractions should not be placed directly over potential natural resource sites.

c. Cluster attractions. Encourage the development of compatible attractions in adjacent areas; set up barriers between conflicting attractions. Group attraction clusters with relative importance to community centers, remote to urban.

d. Design circulation corridors for maximum beauty and appeal. Eliminate distractions and reduce ugliness. Develop entrances with special attention to character of attraction or area being entered.

5. Utilize regional design principles. In addition to implementing normal landscape and architectural design principles such as balance, symmetry, continuity and others known to produce a better environment, special tourism-recreation principles of area design need to be considered.
   - a. Relativity. Every element today has some relativity to every other element. For example, no business, park, highway, or airport stands alone.
   - b. Individuality. Effort should be made against the trend toward homogenizing the vacationscape.
   - c. Satiety. Visitors can become satiated by too much of any one thing--even one type of landscape beauty.
   - d. Suitability. Design all elements to be appropriate to the setting of the given environment.
   - e. Clustering. Wherever possible, group small units into larger ones: larger one-stop complexes.
   - f. Expand Functionality. The design of all buildings and grounds should reflect the function within.
   - g. Experience Efficiency. The degree of satisfaction of visitors is equated with the time, energy, and cost of participation.
   - h. Dynamic Continuity. The characteristics of the users and the nature of attractions cannot be treated in isolation--they operate in a dynamic continum.
   - i. Innovative Creativity. The greatest power for development today lies in our ability to satisfy the new desires of travelers with new and improved uses of basic land resource assets.

Application of this concept was recently made in a major action-study program in Michigan. In addition to the above the project was strengthened by implementation measures utilizing many local organizations and agents of the Cooperative Extension Service. Findings and recommendations are contained in the report, Guidelines for Tourism-Recreation in Michigan's Upper Peninsula.

Today, opportunities are great for the businessman to be much more successful, for the government recreation and park agencies to satisfy greater social goals, and for our extension of resource assets by doing a better environmental design task. We need to improve our technology of design by greater and deeper research. We may need to overcome some of our bigotry and bury some of our prejudices in order to satisfy the man who is spending his time and money on what we are providing for him. Educators and practitioners alike do have an obligation to do an even better job of creating a new leisure world.

FACILITY DESIGN, DEVELOPMENT AND CONSTRUCTION

by

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Developed Area Planning & Concepts of Transportation

The Park Master Plan was discussed during your sessions on last Wednesday. At that time, you each participated in a case study for a hypothetical park--Avalanche Peaks National Park.

The Master Plan establishes a broad range plan that guides and controls the preparation of more detailed plans for numerous park programs including the physical development of parks. Today, we will attempt to develop the actions and procedures necessary to the fulfillment of the Master Plan objectives for the design and construction of park facilities.

The composition of a Master Plan may be as varied as the number of organizations that use the term. The Master Plan for a small county park may be prepared in such detail as to include specific preliminary design of each element. Recently, I saw a Master Plan for a National Park in Canada that consisted of six letter-size sheets of paper, mostly text. Obviously, this plan is very sketchy, presenting only a very broad outline of park objectives.

The Master Plan as now in use by the National Park Service does not include plans that portray in detail the location of each road, building or utility line within a portion of the park designated for such development.

Development plans that do portray the arrangement of these facilities may be referred to as Developed Area Plans, General Site Plans, or some other designation. It is with this type of plan that we begin our discussions of Facility Design, Development and Construction.

The Developed Area Plan serves several functions:

1. Assures coordination of development required to serve the several park programs for which the development is required.
2. Guides the designer in the preparation of detailed plans for each facility.
3. Serves as a basis for preparation of preliminary cost estimates.
4. Provides a graphic reference for use by park managers in the preparation of priority schedules and annual construction programs.
5. Serves as a reference for maintenance staffs.

6. Establishes land use based upon an accepted priority.

I suggest the following priorities for land utilization be adopted as a standard:

1. Visitor-use facilities used by a majority of visitors shall have priority over all other developments.
    - a. Of these, those required for self-service, whether interpretive or recreational, by the individual shall have precedence.
    - b. Managing agency information, interpretation and controlled recreational facilities shall be considered as next in importance.
    - c. Overnight facilities, including both concession provided rooms and concession or agency-provided campgrounds, and attendant services shall be subserviant to the above.
2. Agency and concession management facilities, including administrative offices, maintenance areas, staff housing and quarters, and utility areas shall occupy the lowest priority for land utilization.

It is important that the planner differentiate between the purpose of the park for which he is preparing the Developed Area Plan. The natural area should receive a treatment different from that planned in an area designated for active, mass recreation. In natural areas, particular attention should be devoted to harmonizing developments with their natural environment. At the Developed Area stage of planning, this harmony must begin with adaptation of the developments to the terrain, vegetative cover and other natural elements of the environment. These natural features also should be given consideration in planning for the more active recreational developments but can be altered within the limits of good taste and aesthetic standards.

Certainly a public agency should prepare development standards for guidance of professional planners assigned the responsibility for preparation of Developed Area Plans. In the National Park Service, we have a small group of professional designers assigned to Design Research and Analysis. One of their primary research projects involves transportation concepts, a vital element in development of parks and a controlling factor in the planning for concentrated developments. Mr. Tom Herr, an Architect assigned to this project in the Washington Planning and Service Center, is here to present an illustrated report on Concepts in Transportation and some ideas on concentration of facilities in developed areas.

NPS Developed Area Plans

The general layout of each developed area as so designated on the General

Development Plan in the Master Plan will be portrayed on a separate drawing.

This drawing should illustrate the location of existing physical improvements. In general, proposals will be shown as allocations of space with schematic indication of layouts within each allocation.

Material to be Included

Basic Data. It is desirable to have a survey grid coordinate system with permanent markers established on the ground and shown on the plan for each development area. Other permanent survey markers such as traverse points and bench marks are to be identified on the plan. Contours and foliage are included, but subordinated to development features. Natural, historical, and archeological features which serve to control or modify the development are to be indicated. Boundaries and inholdings must be clearly indicated.

Space Allocations. Clearly indicate existing and proposed areas for camping, picnicking, concession operation, utility area, residential development, etc. Special Protected Areas, within which development is to be excluded or eliminated, should be indicated on the plan. Identify park features within these areas as well as those occurring in other portions of the area covered by the plan.

Circulation. Show all existing roads, trails, walks, parking areas, and related structures, including major drainage structures.

Show all proposed roads, trails, and major parking areas within spaces allocated for developments requiring a network of roads or trails (such as a campground). Show proposals as a schematic presentation, not to include individual turnouts, parking spaces, etc.

Buildings. Show all existing buildings. Indicate proposed buildings by a rectangle, circle, or similar device showing the approximate site to be occupied. The principal views, wind direction, and similar factors shall be indicated when they are important to the sites selected.

Other Facilities. Existing minor facilities such as drinking fountains, retaining walls, etc., may be indicated on the plan by conventional symbols. Normally, proposed facilities of this kind will not be shown.

Developed Area Narrative. A Narrative will be prepared to accompany each Developed Area Drawing. The Narrative will provide:

1. Basic information about the specific developed area.

2. A list of functions of the developed areas as prescribed by the Master Plan.

3. A description of the Character of Development.

4. An analysis of the factors that influenced the arrangement of the prescribed facilities and their supporting developments.

The instructions provided below are offered as a guide. Since the conditions and requirements for the numerous developed areas differ, the form of presentation and the contents of the Narrative may be adjusted to fit the circumstances.

Basic Information. Include information that has specific application to the developed area, such as weather data, terrain, soils, and other development considerations.

Functions. The Master Plan has described the requirements for the development of physical improvements within the area. Each developed area provides for certain activities as a means of accomplishing management programs. These activities, or functions, will be listed to guide the preparation of the drawing and related Narrative.

Character of Development. Describe the desired character for the developed area considering the overall impression or texture to be created, as an addition to the natural land forms. The terrain, the vegetation, or lack of it, the amount of types of use are determining factors in the relation between the density of development and the natural landscape. What forms - forest, plain, desert, or structures - should be predominant?

Consistency in development is necessary if an area is to have unity of character although an allowable variation is also necessary to avoid a repetitive, boring, and dull appearance.

Particularly with regard to buildings, describe the aesthetic standards that should guide the designer toward the development and maintenance of the desirable character.

Among the factors that should be considered in establishing the Character of Development are the following:

1. Management objectives of the area.

2. The period in history that makes the area significant.

3. Geographical location.

4. Surrounding architecture.

5. Climatic conditions.

6. Land forms - local or extensive

7. The presence of water.

8. Vegetative cover.

Development Analysis. This portion of the Narrative is an analysis of the factors that influenced the arrangement of the prescribed facilities, how they meet the requirements of management functions previously listed, and how the layout is consonant with the character of development.

Utilities System Plans

Utilities System Plans provide a record of any existing utility systems and guide the design for new or expanded systems. A well-prepared plan provides a sound basis for good operations, maintenance, construction proposals, and working drawings.

Utilities System Plans are prepared for the same areas which are covered by Developed Area Plans. They shall include the main line within the development, existing and proposed.

In the design of new or expanded utility services, a careful study is needed to determine the extent of utilities required and to choose utility locations which will permit economical construction, operation, and maintenance without detracting from the primary values of the park. It is important that studies for utility layouts be made concurrently with the studies for corresponding development plans, since the design and extent of the developments will be influenced by the availability of water, areas needed for sewage disposal, and similar considerations.

In some instances it will be possible to place the utilities directly on the development plans. However, if the utility systems are complex, separate sheets will be required. In such cases, it is desirable to use a reproduced tracing of the corresponding development plan as a base sheet.

Material to be Included

Basic Data. The survey data and land subdivisions, topography, buildings, and circulation as indicated for General Development and Developed Area Plans, should be indicated in a subordinate manner to aid in interpreting the utility systems.

Utilities. Present each system in such a manner that it may be traced from source to destination. Types of items to be included for each utility are shown under the following headings:

(1) Water Systems. Show ownership. Differentiate between potable and nonpotable water lines. Show sources, storage tanks, with elevations of both. Include treatment structures, water mains, pumps, and fire hydrants.

(2) Irrigation Systems. Show source and location of main ditches, diversion structures, etc.

(3) Sewerage Systems. Show ownership, disposal areas treatment facilities (including type), pumping stations, sewer mains, manholes, storm drainage and flood control structures, etc.

(4) Garbage and Refuse. Show disposal facilities, including incinerators, land fill areas, etc.

Management Requirements and Construction Program

Management Requirements

The park manager is a vital team member in Master Plan and Developed Area Plan activities. I want to emphasize an even more important and critical role of the manager as we begin our discussions of facility design.

The designer cannot be expected to develop a design that meets the need of park operations without an adequate statement of management requirements. Only the park manager can supply the designer with the necessary requirements.

A combination of documentation and direct personal confrontation are essential to complete understanding. Attached is a copy of the document - Project Construction Proposal - used for this purpose by the National Park Service. The cost estimate is prepared by Design and Construction personnel based upon the management and technical requirements. This document is used in the construction programming procedures of the Service.

Project Construction Proposals

General

This subject matter has been prepared as an aid to National Park Service personnel whose responsibility it is to prepare, review, approve or disapprove, or otherwise process documents titled "Project Construction Proposal", Form 10-411 (Revised) with supplemental data Form 10-411a or the "Resource Studies Proposal" for construction, reconstruction, rehabilitation, or for construction-connected research projects in any area administered by the Service. The Project Construction Proposal form, when the required information is shown thereon, is a current, concise summary of the proposed project. It is the basic instrument which permits programming of projects within the anticipated construction programs of the Service. The Resource Studies Proposal, when it permits to a construction project, is a statement of a problem that will require professional judgment on a research project in order that the problem can be reasonably answered prior to initiation of the Project Construction Proposal. Since the main topic for coverage in this chapter is the construction project proposal, the Resource Studies Proposal statement will be detailed only as it pertains to construction projects. Research projects are more fully described in the Resource Studies Handbook.

Expansion of a project, or major revision subsequent to the original PCP, must be explained fully by a revised proposal. Revision of costs only, due to general rise in costs, may be accomplished by memorandum in lieu of preparation of a revised proposal.

Definitions

The term "park" as used herein will apply to any of the various classifications of areas administered by the National Park Service.

The initials "PCP" are used herein as an abbreviation of "Project Construction Proposal". The initials "RSP" are an abbreviation for "Resource Studies Proposal".

The word "Service" as used herein refers to the National Park Service.

The word "Superintendent" as used herein refers to the official directly in charge of any "park" or other area administered by the Service.

The phrase "D&C Field Office" refers to any of the three Service's field offices of Design and Construction which are located in San Francisco, Philadelphia, and Washington, D.C.

The terminology "BPR projects" as used herein, refers to a construction program term applicable to all park roads on which engineering and construction supervision are the responsibility of the Bureau of Public Roads, acting for the National Park Service. Generally, BPR projects are limited to principal entrance roads and the main park road circulation system; however, when economies will result, the BPR may, upon request, perform the work on other jobs.

Responsibility

The Superintendent shall be responsible for preparing the Management portion of all Project Construction Proposal forms. Assistance in this function shall be available from technicians in the park, in the regional offices, the design offices, the Washington Office or other agencies. The Office of Program Coordination in the Washington Office, and its counterpart in each regional office, will assure that current, complete forms are submitted for all projects included in park priority lists. The respective regional directors shall be responsible for the approval of the administrative phase and for all actions in the coordinative phases of Project Construction Proposals for projects within their jurisdiction. Upon completion of the Management portion by the Superintendent and approval by the Regional Director, the PCP shall be sent to the appropriate technical office for preparation of the cost estimate. The responsibility for technical adequacy and cost estimate shall be as follows:

Assistant Director, Resource Studies, WASO for research projects.
Design Office Chief for construction projects.
Assistant Regional Director, Operations for interpretive facilities.

Upon completion of the technical portion, the PCP shall be returned to the Regional Director for further processing and distribution of copies. PCP forms for BPR projects shall be initiated by the Superintendent, reviewed by the Regional Director the same as those for other projects but shall then be forwarded to the appropriate Regional Engineer of the Bureau of Public Roads through the appropriate NPS Design Office for inclusion of technical data and an estimate of cost. The Bureau of Public Roads' representative shall indicate his approval of the technical portion completed by that agency by signature in the space provided for the Design Office Chief. The completed form shall then be returned to the Regional Director through the NPS Design Office. Release of the completed form to the Regional Director by the Design Office Chief will indicate his approval of the technical portion.

Project Construction Proposal Form

The Project Construction Proposal, Form 10-411 (Revised), is the basic originating document relating to a proposed project which has been delineated previously on a currently approved Master Plan, Interim Master Plan, or an overlay thereof for the park. No project which will utilize construction funds will be considered for construction programming unless a current Project Construction Proposal has been submitted, except in extenuating circumstances which must be justified. Storm damage or other emergency repairs are good examples of "extenuating" circumstances. However, when any project for which no PCP has been prepared is inserted in a construction program, a PCP must be prepared and approved immediately. Form 10-411a, "Supplemental Information for Project Construction Proposal" shall be used for presentation of any management or technical information that cannot be included on Form 10-411. Examples of both forms are illustrated in Exhibit No. 1.

The number of projects for which PCP forms are prepared shall be at the discretion of the respective Superintendents and Regional Directors, however, the minimum to be prepared shall be for all projects included in the Project Construction Program Priority List, Form 10-415, (Revised January 1948) for the park concerned. Each Superintendent should anticipate that a revised three-year program will be asked for by the Washington Office shortly after the Congress approves the budget year program and should therefore initiate the preparation of PCP forms far enough in advance to have them ready to accompany the Priority list. The first of May of each year is a good target date for submission of priorities.

Each proposal for a project of a continuing nature will include only that portion of the project programmed for initiation in one fiscal year. Further, a PCP form involving construction in more than one State or County shall show the names of the States and Counties involved. When it is necessary to deter a portion of a project included in an authorized program to a subsequent fiscal year, a new PCP form shall be prepared and given a new index number. When applicable, an annotation on the PCP shall indicate that only a portion of, or the completion of the entire project is contemplated at the time of its submission. For example, R-142 (por.), or R-143 (comp.).

The PCP form shall be prepared for all "construction" as defined herein and must qualify as a public works project as defined by the Bureau of the Budget Circular A-35 as adapted to Service requirements.

Maintenance, repair, replacement or acquisition of new equipment, and protection projects, regardless of monetary amount, will not be considered as proper construction items, except as indicated later. Therefore, PCP forms will not be submitted for these classification of projects.

For Service programming purposes, construction projects are classified within the following subheadings:

Roads and Trails
Buildings
Utilities
Miscellaneous

In addition, the Management portion of the PCP shall show separately the miscellaneous items which are construction caused, or are directly related to the construction project, and the appropriate technical office shall estimate the costs of these facilities separately. Examples of these items are:

Museum Exhibits
Furnishing for Historic Structures and Furnishing Plans
Certain Original Furnishings for Other Buildings
Audiovisual Installations

Research requirements in natural sciences, archeology, history and architecture for individual construction projects or for the entire construction program of a park shall be included on a PCP. A PCP shall be prepared for research alone when the end product of such research is an essential prerequisite to the construction project. The construction portion of a project shall not be programmed until research has been completed or it is reasonably assured that research needs will not delay the start of construction. The originator of a PCP for research should first prepare a Resource Study Proposal and submit it through the Regional Director to the Director. The cost data will be entered in Washington and a copy of the form returned promptly. These data may then be used in preparing the PCP. The PCP and RSP should be cross-referenced by inserting the index number of each on the other. A research project should have the same B (Buildings), U (Utilities), M (Miscellaneous) and R (Roads and Trails) identification as the construction project to which it pertains. Examples of research projects are:

Architectural Explorations and Research
Archeological Research and Salvage
Historical Research and Salvage
Biological Geological Research

For projects in scientific areas, and those involving significant impingement upon natural features in any area of the System, the RSP will contain an assessment of scientific research or professional judgment needs. Recognizing that research needed in support of construction projects is not easily recognized, the Superintendent will secure the participation of biologists, naturalists, geologists, or other specialists on his staff, or if necessary call upon the Regional, Design and Construction, or Washington Office personnel for assistance in identifying such needs. In projects impinging directly upon a natural environment, one or all of the following may be useful or required well in advance of the initiation of the project.

1. Information directly useful to and in support of the construction project. This may include information on foundations, sources of materials, landslide potential, relation to thermal features, perma-frost zones, or other problems peculiar to specific construction situations.

2. Data useful in or required in the use of the completed facility. Information to support the development of an interpretive plan, an exhibit plan, a roadside interpretive system, utilization of geothermal heat or power sources, maintenance under slide and avalanche conditions, and data to support development or regulation of water supplies, are examples.

3. Appraisal of the effect of the proposed project upon natural features or ecological situations. Changes in drainage and ground levels resulting from construction, relation to migratory routes of game animals, encroachment upon a habitat of a rare or vanishing species of plant or animal, disturbance of an ecological situation that has been and may currently be the locus of scientific studies, the relation to the productivity of fish or other aquatic resources, potential problems of erosion, or of the introduction of exotic plant species--these are but examples of things that must be recognized and identified at the time the PCP requirements are formulated at the Park level.

This RSP will serve to alert the Design and Resource Studies Offices to the problem, and to enable them, in consultation, to develop a plan to secure the required information in advance of the beginning of the construction project, and to include appropriate costs in the research PCP. The cost figures of the various parts of a project estimate shall be listed separately on the "Estimate" portion of the PCP form so that each part may be easily identified. "Supplemental Information For Project Construction Proposal" sheets shall be used when the PCP form itself does not provide sufficient space for all needed information.

For all Utility, Roads and Trail, Building and Miscellaneous projects wherein no interpretive facilities are involved, the summarized "construction" costs may be inserted in the proper line of the "Estimate Totals" portion and the current percentages utilized to arrive at the total project cost.

When a project contains both a building (or other type structure) and interpretive facilities, the main body of the estimate must include all direct, PS&S and Contingency amounts for the interpretive facilities and the sum of these figures shall be entered on the "Interpretive Subtotal" line in the "Estimate Totals" portion of the estimate. Current percentages used shall be continued until changed by specific action.

Facility Design

Many agencies employ professional architects, landscape architects and engineers to handle all design. Others employ private architectural and engineering firms and still others employ both methods. The National Park Service employs private firms to supplement permanent professional staffs.

There follow a few suggestions for establishing and operating a professional services contracting office and for negotiating professional services contracts.

1. It is essential that a registry of professional consultants be developed, with an individual dossier for each consultant and an organized reference system. If the contracting office is newly established it will be helpful to draw upon the experience and knowledge of associates, other contracting offices, and others whose business activities bring them in contact with architects and engineers. Construction contractors can be particularly helpful by reason of their experience with the clarity and completeness of the drawings and specifications prepared by various designers and with the extent of their cooperativeness, with the additional cost to owners because of the necessity for change orders which could have been avoided had the architect or engineer taken more time for research or more care in delineation and specifications preparation, and with the general standing of the consultant among the construction fraternity.

2. After the registry has been established it should be assiduously maintained to reflect the additional experience of the individual consultants, with appropriate comment as to the success or failure of both the contracting office and other clients with each of the registrants. The registry should be permitted to ripen - as to additional registrants - generally through the normal process of inquiry by those demonstrating sufficient interest to visit with the contracting office or otherwise making known the availability of their services. It is considered that this procedure is preferred to that of inquiry by the contracting office since it is in the tradition of our free society to reward those otherwise qualified and who show by their aggressiveness and zeal their desire

to participate in the main stream of competition. It also has the added feature of giving the contracting office some advantage during the negotiating procedure.

3. In the selection of a consultant, a panel of candidates should be determined, after first screening from a larger group of those consultants considered to be generally qualified for the undertaking under consideration. The initial selection will include, for example, those consultants practicing within the area of the proposed construction, those who have performed outstanding service under previous contracts, those who have had particular experience in the class or kind of the proposed construction, and those who may have been recommended by responsible sources for their particular ability. This group then will be reduced by critical and impartial appraisal, through consultation with one or more of those on the list, preferably at their place of business, by inspecting physical evidence of their design, by conferring with their former clients. The resultant panel should consist of the best efforts of all those having a professional interest or management responsibility for the proposed undertaking, and should contain the names of at least three candidates, the number dependent upon the magnitude of the undertaking and other factors peculiar thereto.

4. Before direct negotiations are begun there must be a clear understanding by the owner of his requirements. Ideally, this should be reduced to writing - in both narrative and tabular form - and perhaps accompanied by simple sketches.

5. When the owner's requirements have been adequately clarified and the budget and time schedule decided upon a conference then is arranged with the first candidate. At this initial conference it is necessary to acquaint the consultant only with such requirements of the project as are necessary for him to assess the magnitude of his efforts, his willingness to comply with the owner's unique demands, and his ability to meet the budget and time schedule, and to present his fee proposal. A sample contract should at the same time be furnished to the consultant, with an explanation by the contracting office as to all the conditions.

6. Since the contract is for professional services it should be negotiated on the basis of professional competence rather than for the lowest fee, which is the accepted and preferred practice as to all professional disciplines.

As to whether the fee should be negotiated on a lump-sum basis or as a percentage of construction cost there are two schools of thought, but generally much the same result is obtained. In some cases the controlling public body allows of no choice, but whichever method is followed there must be a recognition of the comparative difficulty of the assignment, with an attendant effort to achieve for the owner the maximum dollar saving consistent with the benefit to be desired. This best is expressed as "fair and equitable", a doctrine much to be respected by both parties to the contract. If a statutory fee limitation exists this should be regarded as the limiting factor, not to be applied indiscriminately.

7. After the initial conference and after a satisfactory fee has been negotiated (if the fee has been negotiated downwards from the original proposal it must be emphasized to the consultant that there is to be no dimunition of professional effort and in the completeness of the design documents) a conference then is conducted between the consultant and his aides, on the one side, and the contracting officer's representatives and specialized aides on the other. At this conference the requirements of the undertaking are discussed comprehensively, making reference to the previously prepared program. Each reqûirement must be carefully and painstakingly discussed so that there is a clear meeting of the minds, with preferably notes taken and later typed for continuous reference both by the consultant and by the contracting office throughout the term of the consultant's services.

When the consultant departs he should be instructed as to the one person in the contracting office who is responsible for the coordination of communication. He should have a complete understanding of the scope of his service and of the comprehensiveness of the service entitling him to payment for each fee installment, and of any limiting factor therein, such as non-payment except upon fulfillment of a special requirement; that both he and the contracting office are embarking upon an important mission; and that while the contracting office will be cooperative there will be insistence upon strict adherence with all contract requirements, a sound estimate, and a timely schedule.

8. After the contract has been awarded it must be carefully administered. No matter how scrupulously the requirements may have been set down in the agreement or how painstaking may have been the conference at the time of award the services required to be performed by the professional consultant will not flow smoothly, per se, and in some cases they may hardly flow at all without vigorous direction by the contracting office.

The contracting officer must impress the consultant at the start that one man in the constant's office - a principal of the firm or a senior member of the staff - must be placed in charge of the project and that this man will be the one to whom the contracting officer will look for responsible answers to all questions.

If, for instance, the contract is for architectural services, including design, the first order of business probably will be the preparation of schematic drawings. Since these set the form and style of the building, as well as its functional arrangement, the importance of this stage cannot be overstressed. It will be recalled that during the negotiating stage emphasis was placed upon the importance of crystalizing the owner's requirements, both as to the owner and as to the consultant. If that already has been done, the preparation of the schematic by the architect and their review and approval by the contracting officer should be much less difficult. In any event, it is essential that complete agreement be had in respect of the schematic drawings before the architect is permitted to proceed further.

Of no less importance than complete agreement as to the schematic drawings is a cost estimate - as firm as it is possible to project it on a square-foot or cubic-foot basis, which is about the most refined type of estimate possible at this stage. If the contracting officer is not convinced that the structure can be built within the budget the architect must be instructed to revise his schematics accordingly, either as to general size and form or as to details of construction.

9. Once the schematics have been approved, the next stage is the preparation of preliminary drawings - these should be complete as to general space sizes and all arrangements, scaled elevations, and one or more cross-sections. The floor plans, in particular, should receive scrupulous attention to make certain that they provide all the space, and in the proper arrangement, adequate communication, and proper orientation. A more refined cost estimate is required at this time, again reviewing the necessity either for reducing space or for providing for less elaborate details. An outline of specifications at this time is imperative, together with preliminary design analysis for structural, mechanical, and electrical facilities.

10. After the preliminary design documents have been approved, the construction drawings - also known as working drawings - are started. Dependent upon the size of the project these should be submitted at progressive stages of completion - but never less than one intermediate stage - together with a draft of the specifications.

Towards the completion of the construction drawings and specifications, the cost estimate should be reaching its final form, and if the architect has been diligent from the beginning, maintaining a "running cost estimate", the final estimate should be within a reasonable range of the budget. If it is not, the drawings, and particularly the specifications, should be reviewed in concert with the architect in an endeavor to remove some of the "fat" without sacrificing space or general appearance. Questionable items may be considered as candidates for alternate bids.

It is important that the cost estimate be carefully reviewed to make sure that no item has been omitted or permitted unnecessarily to become an alternate.

11. Throughout the entire period of the consultant's services constant attention should be paid to the time schedule. One of the disadvantages in permitting it to lag is that the consultant may shunt it aside for work of other clients who are more pressing in their demands, and place your contract in the hands of less competent members of his staff.

12. When bids for the construction has been received, and are within reasonable range of the estimate, the consultant then should receive his final

fee installment, usually about thirty percent. If satisfactory bids have not been received, and if there were no unusual aspects of the bidding procedure to prevent adequate competition, then the consultant must make such revisions in the drawings and specifications as will accomplish the mission. The consultant's final fee installment should not be allowed until subsequent bidding proves the merit of his estimate.

Contract Administration & Construction

The following general comments are offered as a general guide to those whose work involves the handling of construction projects through contract. The administration of such contracts has become increasingly complex and there are many legal ramifications.

The most important thing to remember is that potentially these construction contracts may give rise to a wide category of disputes unless properly handled.

Provisions have been written into construction contracts authorizing the contracting officer to make changes in plans and specifications, to order extra work, to agree with the contractor as to an equitable adjustment in the contract price, to assess liquidating damages for delay, to extend the time of performance when the delay was not due to the contractor's fault or negligence, to terminate the contract for default and assess the contractor for excess costs, to interpret plans and specifications, and to inspect and accept the contractor's performance of the contract.

In each of the above areas there exists a possibility of disputes. The majority of these can be handled by contractual provision which provides for an on-the-ground agreement between the contractor and the contracting officer.

In the event, however, that such agreement cannot be reached, and as a means of handling appeals from the contracting officer's decision, "Boards of Contract Appeals" are established.

Contracting Officers and construction inspectors must be thoroughly acquainted with the General Provisions of contracts, as well as with Special and Technical provisions. The value and importance of documenting any instructions to the contracts cannot be over-emphasized whether they deal with a simple interpretation of specifications or a change of work.

In recent years, the complexity of contracting has brought on the need for clarification and consolidation of regulations and procedures. The Department of the Interior is combining its Procurement Regulations with the Federal Regulations applicable to all agencies of the Federal establishment. The National Park Service, in turn, is issuing its specific regulations in combination with these controlling regulations. We believe this consolidation will be of great assistance to our contracting personnel.

In the National Park Service, personnel from our three Design and Construction offices are assigned responsibilities for supervising construction in the parks. Duties so assigned are outlined below:

DUTIES OF CONSTRUCTION PERSONNEL IN THE FIELD

A. DUTIES RELATED TO CONSTRUCTION CONTRACTS

1. Surveys

   Installs or supervises the installation of field control for construction projects by one of the following methods:

   A. D&C office survey crews.

   B. Contract survey crews.

   C. Contractor's survey crews.

2. Addendums

   It is the responsibility of field personnel to review plans and specifications that are out for bid for adequancy and accuracy and, when errors or omissions are found, it is their responsibility to see to it that the D&C Office is advised so that addendums can be prepared. When directed he may have to prepare the addendums.

3. Site Visitation by Contractors

   Shows proposed contract work site to potential bidders and answers questions relating to the work, the plans and the specifications.

4. Plan and Specification Distribution

   When projects are advertised in the Park, he assists Park in getting good distribution by improving bid lists and local contacts.

5. Bid Openings

   When required, conducts or assists bid openings in the Park. Also, prepares or assists in preparing:

   A. Abstract of bids.

B. Analysis of bids and makes recommendation of award to Contracting Officer.

C. Investigation of low bidders's qualifications.

6. EEO

When required, makes EEO pre-award survey, and follow-up action on EEO during contract.

7. Bonds, etc.

Checks contractor's bonds and workmen's compensation to see that it complies with specifications.

8. Pre-Construction Conference

Makes arrangements for and conducts pre-construction conference. Prepares summary of notes of conference and makes distribution to Contractor and Service.

9. Notice to Proceed and Delegation of Authority

The Notice to Proceed is issued by the Contracting Officer after first clearing with the field construction personnel to see if conditions are suitable. The Contracting Officer delegates him as his representative and gives him authority to act on all matters except those dealing with money and time.

He in turn prepares a letter to contractor when he delegates the inspection to certain project inspectors and describes their authority.

10. Work Schedules and Cost Breakdown

He reviews and approves Contractor's proposed work schedule and cost breakdown for lump sum bid items.

He checks Contractor's work periodically to see that he is following his work schedule and initiates corrective action and warnings when necessary.

11. Project Inspection

He is responsible for and supervises or makes required project inspection to see that the project is constructed in accordance with plans and specifications.

When difficulties arise and during certain special phases of the work he determines if special technical assistance is required and makes the necessary arrangements through the D&C Office for this assistance.

Works with Service, outside and other agency testing laboratories in testing equipment and materials furnished on the contract. Analyzes results and if necessary originates corrective measures, sometimes with the aid of D&C specialists.

Funds for this work are from the D&C Office, contract or contractor. Funding must be cleared before any testing work is started.

12. Liaison Work

He works with Superintendent, local agencies and land owners in problems of right of way, etc., relating to the project.

He is a member of the Superintendent's staff, attends staff meetings, and keeps the Superintendent and his staff fully aware of the construction operation.

He coordinates the construction work with Park, BPR, Concessioner and other Agency construction projects.

13. Shop Drawings

Requires the Contractor to submit the proper amount and type of shop drawings required for the project.

Acts on the portion of these drawings that he is qualified to and has sufficient catalogs or other reference data. The remainder are sent to the Supervisor of Construction for recommendation by the technical specialists in the D&C Office. Using these recommendations, approves or disapproves all shop drawings and makes final distribution.

14. Safety

Is generally a member of the Park Safety Committee.

Is responsible to see that the Contractor carries on an active safety program and conducts his construction in a safe manner.

Sees that safety posters are used.

Reports all accidents relating to the project.

15. Job Diary

Keeps a daily record of all project activity including agreements made with Contractor, data on weather, amount of equipment and personnel on job and other pertinent data. Diaries are filed at the D&C Office after project completion.

16. Weekly Report

Prepares weekly reports on all construction activities. This report is more general than the data included in diaries. The report is sent to the Chief, D&C, with copy to Park Superintendent. Distribution is made to Washington Office from D&C.

17. Payment Estimates

Obtains all the required data and prepared rough drafts of monthly, periodic or final payment estimates for typing by either the Park, where they have the required personnel, or D&C. These estimates are furnished to the Contracting Officer for approval and further action.

18. Change Orders

Determines need, collects data, prepares estimates, determines extensions of time if required, negotiates for and prepares rough draft and Findings of Fact for Change Orders. The Change Order is either typed in the Park, if personnel are available, or at D&C and approved and processed by the Contracting Officer.

19. Wage Rates

Makes periodic checks with the Contractor's personnel to see if they are receiving the proper wage and fringe benefits called for in the specifications.

Requires the Contractor to submit weekly payrolls and reviews these payrolls to see that the Contractor is complying with the labor provisions of the contract. If errors or omissions are found, sees that corrective action is taken.

Makes labor violation investigations as requested by the Department of Labor or others.

Weekly payrolls are filed at the Contracting Officer's office after the contract has been completed.

20. Claims

Furnishes the Contracting Officer with the data he requires. When requested, prepares correspondence to the Contractor and others and prepares Finding of Facts when required.

21. Construction Funding

Keeps an accurate up-to-date record of construction funds spent, and estimates for future needs in order to prevent overruns. When overruns are anticipated, he prepares estimates and thru the Contracting Officer makes certain these funds are available before the work is done.

Prepares estimate and advises Contracting Office of funds required for Change Orders and makes certain that funds are available before any Change Order work is done.

22. Photographs

Maintains required photographic coverage of project for unusual features, areas of controversy where there is a claim potential and for Completion Report.

23. Final Inspections

Organizes Prefinal and Final Inspections by arranging for required specialists from D&C, Park and Regional personnel and Contractor personnel.

Conducts the inspections in a thorough and organized manner. Follows up with a comprehensive report and sees that the Contractor's corrective action is carried out if required.

24. As-Constructed Drawings

Keeps up to date, marked up, full-size copies of the drawings showing As-Constructed data. At the end of the project he is to correct tracings to As-Constructed status or furnish the marked copies to the design section for final drafting as directed.

25. Completion Reports

Drafts of the Completion Reports along with the required photographs are to be completed as soon after the project is complete as possible and furnished to the Park for final typing, the addition of fiscal data and further processing.

Developed Area Planning

The master plan, as developed by the National Park Service, includes a general development plan and does not include the detailed plans showing the arrangement of roads, facilities, buildings and so on, within a given part of the park. The planning document which picks up at that point and includes such detail is the Developed Area Plan. You might call it a general site plan.

The developed area plan is prepared for each circle on the General Development Plan that represents a portion of real estate selected in the master plan for development. The types of use and types of development that is to be located in each of these circles is described in the Master Plan. We'll pick up at that point and take one of these circles and describe what we do with it. We'll put in some sort of entrance road, a campground, interpretive facility, picnic area, employee residential area and utility areas. This is what I refer to as a developed area plan.

Not a single spade should be put into the ground until the master plan and more detailed operating plans are prepared describing what is to be done. I think all of us have been guilty in the past of deciding we want to put in some sort of development without too much thought of what we need, what types of use we are trying to provide for a park visitor... we go in and build a campground and picnic area...and maybe it isn't needed. Not long ago I visited a reservoir area in Wyoming with which the Park Service has been working. Just because it has been the thing to do, we had put in a campground, picnic area and the usual kinds of facilities that are developed in a water oriented recreation area without realizing there are very few people within miles that are going to come there and picnic just for picnicking's sake. They come there only for water-oriented recreation. Any picnicking they may do is associated with the use of water and boating. So the picnic area was never used. We didn't think out thoroughly just what types of use are required in that particular area. The master plan was at fault because it had said, "There will be in this developed area picnicking."

Developed Area plans must be prepared fully in coordination with the Park Manager. A designer or planner, from some central office, should not go into a park or recreation area and decide where he wants to construct the needed facilities without working very closely with the Park Manager. Likewise, where Concessioners are under contract to provide services, the Concessioner should participate.

There are several reasons why we prepare Developed Area Plans. First, the Developed Area Plan assures coordination of all development required to serve the numerous park programs identified in the master plan. By park programs, I mean the programs that have been developed for providing information, orientation, interpretation to the visitor; provide for certain recreational activities; sets forth the way this park will be maintained; and where staffing is required to properly operate the park program.

Secondly, the plan will guide the designer as he prepares more detailed plans for the actual design and the construction of each facility, whether it is a single building, a campground or a marina.

Thirdly, it serves as a basis for the preparation of preliminary cost estimates needed for programming construction funds. It also provides a graphic reference for use by the Park Manager in the preparation of priority schedules for use in the annual construction programs he must prepare.

The plan also serves as a reference for use by maintenance staffs in parks. It shows the location as we construct these facilities of the various roads and buildings so that the maintenance programs can be worked out around these various facilities.

I think perhaps most important...the Developed Area establishes a land use based on the priority that is developed for the use of the land within this particular piece of real estate. We could get a lot of discussion and disagreement with regard to a priority of land use within a developed area. It depends a lot upon the policies of the governing agencies involved; it depends upon the type recreation area or park with which we are dealing.

We would give a high priority in terms of land utilization here to those portions of the land that are needed for public facilities over and above those that are needed for the development and construction of management facilities. Administrative offices, maintenance facilities, staff quarters, etc. don't require the same type of land from the standpoint of desirability as do those that are developed for the public. I believe that of these, public facilities and the lands that are devoted to them needed for development of self-service facilities, whether it be a recreational facility, or an interpretive facility should take the highest priority. The visitor should have the opportunity to explore the values that are there without being led by a guide.

Second in priority, I would devote land to those facilities which do require a certain amount of control, whether it is information, interpretation, or any kind of control recreational activities.

Third priority of these public areas apply to lands that are required for the development of facilities that provide for the physical comforts of the visitor. I would put overnight accommodations, a lodge, a motel, and a campground in the same level here. The concessioner, with private funds, develops overnight accommodations for the recreation area or the park visitor, deserves an equal consideration in the use of land as we might devote to campground use.

In preparing the Developed Area Plan there is a need to differentiate between the type of park and the purpose for which the park was established and used. In any natural area...and this applies very strongly to a natural National Park...we treat this particular real estate in a different way from developments for mass recreational use such as we would develop at a reservoir. We must consider the natural environment to a greater extent in a natural area. I consider all parks recreation areas. But in terminology, in the Federal government, recreation areas are a particular kind of park. Even in the recreation area, however, the designer is to give full consideration to the land, only to a limited degree does he actually alter the landscape and this is only within good taste and aesthetic standards.

Every public agency involved in recreation needs to prepare development standards for guidance of those professionals who are given the responsibility of planning. Most Government agencies have been remiss in providing policy guidance to planners.

About a year ago in the Park Service, a small group of professional designers were organized in our Washington, D.C. Planning and Service Center...called the Design, Research and Analysis Group. Their activities were orienting on certain important problems we must be concerned about. One is transportation in parks. We all know that the average American public is married to his car and so he gets everywhere he wants to go by car. We have just made a decision in one of our parks...Mesa Verde...to take a road only into a certain point in this park, terminating in a parking area. The facilities needed to serve the public will be located at that point, and the public will be transported by an "elephant train" to the various points of interest. There will be no private automobiles beyond this point.

Tom Herr is going to explore this concept with you in regard to other areas, and give us some ideas about various types of transportation methods we think may be the answer to this problem of transporting people within park and recreation areas.

Construction of Facilities, Funding and Construction Programming

Perhaps the most important responsibility of the Park Manager to park development is the preparation of management requirements. We are now discussing the next stage of planning after preparing a developed area plan--actual design of a facility that has been approved for development within the park. Each park and each government agency that manages parks needs to develop a procedure whereby funds are acquired for construction of facilities. Along with this there is a great need for the park manager to specify to a designer exactly what the requirements are for the particular facility that is to be constructed.

In times past, in the National Park Service, the park superintendent has been responsible for preparing a document, which we call a project construction proposal, in which he attempts to describe in a technical way the facility that is to be constructed. Now this superintendent may have come up through the ranks in business administration or some other discipline and his experience from a construction and design point of view is somewhat limited. So he forms in his mind the type of facility that he is thinking about. He even decides that it's going to be built of a certain kind of material, and so he puts down on this form in great detail what it is that he wants. Then he goes ahead and estimates what it is going to cost. This procedure results in considerable confusion between the park manager and the design and construction office responsible for the design of the facility.

About two years ago this procedure was changed whereby the park superintendent, on a revised proposal form, specifies his management requirements.

In the case of a building, he will state the type of use to which this building is to be put, the kind of offices that may be required if it is to house administrative offices, the type and the method by which certain programs are presented to the park visitor, if it is some sort of an information, orientation or interpretation facility. This set of requirements provides the designer with a general guide as to the type of facility needed. From this set of requirements our design and construction offices in turn prepare a technical description of the facility that meets the requirements set forth by the park superintendent, and estimate its cost so that in the preparation of annual construction programs presented to the Bureau of the Budget and the Congress a realistic cost estimate is available.

We have found that it has been somewhat difficult for the park manager to understand exactly what a technical design and construction office needs in the way of requirements. Some training is required. To bring access to the Cliff Dwelling at Mesa Verde as an example. The Park Manager should say to the Designer: "You will build an access to this Cliff Dwelling that will develop an attitude in the park visitor so he is ready to receive an experience of visiting an ancient cliff dwelling once he arrives there." There are several ways this might be done. He would also state how many people should be taken to the Cliff Dwelling in any given unit of time, and other similar management considerations. The design and construction office would have a responsibility to set forth in writing and sketches, several alternate ways for meeting these requirements and what each would cost. The park manager then would have the responsibility for deciding which way we would go and how much money we would spend to provide this pedestrian access to the Cliff Dwelling.

Over the years, people in design professions get the idea that managers of parks really don't know anything about design and so tell them what they are going to do, and they can take it or like it. This attitude is sure to result in inferior developments. The park manager and the designer must work together in coming up with a solution to the manager's problem...not the designer's problems, so when the bulldozer starts to work, everyone is completely in agreement of what we are doing.

We might discuss briefly the preparation of construction programs. The construction programs of the National Park Service, and probably most public agencies, are developed over a period of several years. At any given time planning is in progress for construction programs covering a three year period. The three year approach is necessary to assure construction of the facility when construction funds are made available. In the National Park Service, San Francisco Office, we have developed a number of ADP systems so current information is available on status of a development project; what master planning is yet to be done; what developed area planning; topographic surveys, and so on. A microfilm system is used for filing and easy handling.

Preliminary plans are prepared for all projects. Review and approval of preliminaries is jointly shared by the park manager and design professionals. Of especial importance in NPS operations is the development of Architectural Themes that are followed from the Master Plan through final architectural design. The Theme approach, relatively new in the Service, should do much to assure continuity of good architectural design.

Contract Administration and Construction

Contract Administration is extremely complex, and the legal ramifications of contract administration seem to increase almost daily. The construction contracts that are prepared in the National Park Service and most other agencies, have provisions authorizing the contracting officer to make changes in plans and specifications, to order extra work to be done by the contractor in accordance with the general provisions and specifications, to work out an agreement with the contractors as to an equitable amount to be paid to the contractor for any changes that are directed, to assess damages in the case of delays in completion of the work, to extend the time that the contractor has to perform when the delay that might develop is not the fault or negligence on the part of the contractor, and even to terminate the contract in the event of some default or assess the contractor for excess costs in the event that becomes necessary. The day-to-day inspection of the construction work as performed by the contractor is also the responsibility of the contracting officer.

There are many ways in all these procedures where disputes can develop. This may be because of inadequate specifications or plans, varying interpretation of the plans and specifications, or inadequate supervision. Constant communication between all parties to the contract is necessary to assure complete understanding in the scope of the work.

When agreements can't be reached after disputes do develop, procedures are established in the Federal government whereby a board of contract appeals acts upon the dispute, coming to some determination as to just who is at fault in the matter.

Any of you who might be involved in becoming a contracting officer know that the contracting officer must be thoroughly acquainted with the general provisions and specifications, and know exactly what is called for in the special and technical parts of the specification so he can administer it wisely.

Quite recently the responsibility for contract administration in the National Park Service has been taken from the superintendents of each park and given to the design and construction offices. This happened rather abruptly, although many people had proposed over many years to make this change. It was impossible for design and construction personnel to take over all this work at a given time, and so during an interim period this responsibility has been delegated to certain superintendents who have proven they are well able to perform this function.

Some contracting problems are quite simple and claims that are submitted by contractors can be worked out by negotiations without going to the court of appeals. However, in some instances, the problem is much more acute. I might give you an example of one in which we are involved at the present time. Some four years ago at Grand Canyon a contract was let for the construction of a water line to take water from the North Rim of Grand Canyon down through the canyon and up to the pumping plant near the south rim. This was a several million dollar job, a monumental undertaking on the part of the contractor. All the equipment and manpower had to be taken into the canyon by helicopter. There were numerous accidents. Complications were many. Finally, the job was almost completed when a $1,000 dollar flood on the North Rim of Grand Canyon changed completely the landscape of Bright Angel Creek along which the waterline had been located. Several steel bridges constructed to carry the waterline across the creek were destroyed; much of the waterline was completely taken out, and undoubtedly some that remains is full of sand and gravel. This happened in December, 1967. Since that time there have been many studies and recommendations made as to what to do about it. Contracting experts and legal consultants spend many hours to determine the degree of contractor's liability.

Fortunately, few contracts involve so much. More common are the others that are relatively minor disagreements between the contracting office and the contractor.

In the National Park Service, the Design and Construction Offices assign personnel such as engineers, architects, landscape architects and inspectors to stay in the parks during the construction season on day-to-day inspection of construction activities. The man in overall charge of the work in the field is known as the Project Supervisor. These people have numerous responsibilities. One of the most important, from the standpoint of this matter of possible claims that might arise, is to keep a very carefully documented diary of everything that goes on and to make sure all the contractor's instructions are in writing. In addition to this, inspectors double as surveyors to gather together information to be used in design of construction projects, and programs for future years. They also assist in the evaluation of bids when they are received.

The park staff, the Superintendent and his clerical people, assist in bid openings; the evaluation of bids; evaluation of contractors' capabilities and adherence to equal employment opportunities.

The Project Supervisor and members of the park superintendent's staff, always have a preconstruction conference with the contractor. At this time, not only do they go over the general provisions and special provisions of the contract, but discussion is held with the contractor in regard to concern over preservation of the natural resources of the park, and problems that might occur as a result of construction activities.

Often, due to the lack of personnel, contracts include a contractor-furnished-survey crew who assist in layout of the job. These people are in effect, an extension of the contracting officer's responsibility in work layout and measurement of materials. The field man has the responsibility for checking to make sure that the contractor is living up to the terms of the hourly wages that must be paid to the employees of the contractor. He must measure quantities and work up with the contractor the payments that are to be paid each month. So he is a busy man.

If possible, concentration of construction in a park is in such a quantity that one Project Supervisor, with certain assistance, can handle a large amount of construction at any one time. Unfortunately, park needs for development make it necessary to program construction funds in any number of parks at the same time and inspectors are often spread rather thin. Park staffs, particularly if they have trained technical people, quite often assist in construction inspection where sufficient inspection is not available from the Central Office.

The field man needs to keep marked up a full set of construction drawings so that once the job has been completed there is a record of what has been constructed. There is nothing more frustrating to a park maintenance man than to know that he has a leak in the water line and doesn't know where the water line is. This is most important.

ADMINISTRATIVE CONCERNS

by

E. W. Watkins

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Administration is a very vital, forceful part of your over all management effort. This Institute presumes that each of you have had training at the middle management level through middle management institutes, many of the various courses that are offered by the Civil Service and the Defense Department agencies. I am not going to dwell on the principles of management nor the principles of organization.

I do know that management irrespective of whether you are building washing machines, bulldozers, automobiles or running a recreation park... involves the very same principles all through. There is no difference. Your main goal is to achieve your job, accomplish your missions...so it is to speak within the very limited resources that will be made available to you. I am going to speak, therefore, rather generically of administration. We'll deal with details at the end of each subject. I take this approach because we have three levels of government represented here... the federal, state and local levels. The degree of complexity, as between levels of government, will vary. The basic principles of administration are still being met at all those levels. The Institute further could not differentiate the scopes of operation within which you may be operating.

Some of you may have a huge park involving thousands or millions of visits a year. Others may have only wayside features somewhere that is convenient for traffic and has heavy visitation. We have to recognize that the size of the areas that you administer, is naturally going to govern the organization you will need. But despite the size, someone is going to have to do the administrative work.

With respect to small areas, within the Park Service, we have 52 areas within the southwest region and most of them are little 5 to 8 areas. Naturally, they are not concerned with full scope of our own administrative activities there for reasons of economy and common sense. Administrative functions in virtually full range are performed at larger areas such as Grand Canyon, Lake Mead, Zion, Mesa Verde and Glen Canyon...with only the accounting function centralized in the regional office.

I hope to destroy the concept that professional people have always had...that administrative work is clerical and must be subservient to your professional programs. This is only partially true. I hope to impress upon you then, that administration should become a very vital and forceful part of your life as a manager.

You have studied, at this Institute, what recreation uses you may derive from your resource. You have considered the socio-economic factors, ecological problems for development and use of your particular resource, and you have explored the nature of man himself in a recreational environment.

You know how to develop a recreation plan for your recreation machine, and have learned how to approach planning scientifically and professionally. You have learned how to interpret your machine for maximum enjoyment and education of those whom you would recreate. You visited some living recreation areas and related what you saw to what you have learned and heard here. In other words, you have built yourself a machine now and there it sits... architecturally sound, blending with a pleasing appearance...but it won't run yet.

This morning we are going to involve some financial management and all-essential administration to run your machine. We are going to get you some money, equipment, staff and provide the information you need to manage your recreation machine effectively and wisely.

In the discussions to follow, the procedures and methods may be considered generally typical of the overall processes, but not necessarily faithful in detail to the operation of each agency or each governmental level represented. Time will not permit getting into the multitudinous details represented on the walls of my library.

Let's speak of getting money, Budgeting to obtain funds...How many have the cycle of the budgetary process in your mind? It is a comedy of check, and cross-check, review, rejection, and adjust. The budgetary cycle begins 18 months prior to the budget year. Last December, 1966, we furnished preliminary estimates for the fiscal year 1969 beginning July 1, 1968.

Under the new PPBS concepts, we add another four years separately for long range purposes. They are strictly PPB submissions and need not be precise, and may be called for in three or four different stages which can provide flexibility in future budgetary circumstances. For example, we recently were requested to submit our realistic budget for the budget year of 1969 and then project three more budgets based upon no change from the last budget year and a 10 percent increase, and then a budget with no restrictions. You can see the purpose of this. Back in the days when we got into crash programs, (accelerated public works) the administration had to make rapid adjustments, and funnel monies into areas that were becoming economically depressed. Those were the days when you "got this money, get rid of it!" PPB will give us three types of budget situations to fit three possible types of economic situations.

PPBS means: Planning, Programming and Budgeting Systems. It is a conceptual approach to top level management decision making. The big decisions in top level management are always how to get the most out of limited resource which are always limited. What can we do to accomplish the most toward our missions? What has the highest priority? The principles of PPBS are no more concisely stated anywhere, than in this testimony of Secretary of Defense McNamara before the appropriations committee before the Congress. It demonstrates what PPBS is. This is what Mr. McNamara says, and let me give you his hypothetical illustration to make the point.

Suppose we have two tactical fighter aircraft which are identical in every important measure of performance except one. Aircraft "A" can fly 10 miles an hour faster than aircraft "B", however, aircraft "A" cost $10,000 more per unit than "B". Thus, if we need about a thousand aircrafts, the total additional cost would be $10 million for the faster aircraft. If we approach the problem from the view point of a given amount of resources...in other words, we only have so much to spend for this airplane, the additional combat effectiveness represented by the greater speed of aircraft "A" would have to be weighted against the additional combat effectiveness which the same $10 million could produce if it was applied to other defense purposes. More aircraft "B", more aircraft ammunitions, more ships or even more military family housing. And if we approach the problem from the point of view of a given amount of combat capability, we would have to determine whether that given amount could be achieved at less cost by buying more aircraft "B", more ammunitions, or better ammunitions, or perhaps surface-to-surface missles. Thus, the fact that aircraft "A" files 10 miles per hour faster than "B" is not conclusive. We still have to determine whether the greater speed is worth the greater cost. This kind of determination is the heart of PPBS. It is sometimes called "resources allocation". This expresses the principles of PPBS better than anything.

To get on with our budget cycle, these preliminary submissions are usually due in April of each year into your departmental level. Between your operating manager, assuming this is your position, and the final authority on funding, there is a world of red tape and confusions. Administration is the birth place of red tape. In April, the department calls for your budget year submission and your bureau asks you to start in December. The department calls for the bureau estimates with the budget year and the PPBS projections for the four years beyond.

When they are received in the department, they are reviewed by the departmental office of program analysis. After the department goes over the bureau's services budget, they hold hearings before the Secretary's PPB advisory board where the bureau chiefs meet and defend their proposals. At this point the Secretary considers his relationship to those above and the President's program. The advisory board advises the Secretary whether or not the submissions are in line with the Secretary's goals, the President's goals and with what Congress might buy. After going over these budget proposals with the bureau chiefs, the Secretary makes the determinations of the amounts, and the staffing levels to be included in the Department's submission to the Bureau of the Budget. If the Secretary makes cuts or adjustments such as applying more money toward a specific program...at that time when the budget is submitted, the bureaus are informed what the adjustments are. All levels below make their adjustments accordingly.

The Bureau of the Budget review the proposals with the Secretary and his staff. After the review, the President may set guidelines with policies, objectives and requirements by the President. Every step is subject to public pressures from citizens, special interest groups or congressmen for adjustments. These are political influences.

After the Bureau of the Budget reviews the Secretary's proposals and supplies the President's guidelines, the Bureau then sends back to the Department their advice as to the planning figures to be brought up on the appropriation estimate cycle. These are preliminary estimates.

The Department is advised as to the planning figures that will be allowed by the Bureau of the Budget (which represents the President). Then the cycle goes into the appropriation estimate phase.

About 10 months before the beginning of the budget year, the Secretary determines the amounts that are to be applied toward each bureau from the Bureau of the Budget planning figure. Then the Bureaus are notified in August about the ceiling allowances by operations and capital programs, and simultaneously the Department calls for appropriation estimates. The Secretary will have great latitude with these allocations from the President and the Bureau of the Budget. The President will try to defend these allocations in Congress. The Secretary and President have great latitude for restricting the programs of any agency, or even eliminating segments. For example, if either doesn't like our interpretive program in the Park Service, he could cut our interpretive money to the degree of his displeasure. Every thing has to be in line with the requirements of the Secretary and the President. It still has to be determined whether Congress will buy this package.

In August, the Department may specify to the bureaus that the estimates must meet certain criteria, policies and special instructions. They must be justified, sometimes in detail. Last year we had to have a detailed justification for each new position we requested. Previously we could classify our requests for new positions in distinct categories: for example, one category was new positions for increased facilities. Maybe we built a new visitor center somewhere and had to have people to man it. The department can control this, which they usually do in anticipation of how tough the going may be.

The Department call memorandum may specify what activities are to be curtailed, or what programs are to be cut; if they wanted to cut our interpretative program they could well do it at this level.

Simultaneously with the call for our appropriation estimates, the service calls go out to the regional directors for their appropriation estimates with the instructions as to criteria, policies and assumptions to be applied the same as the department imposed upon the Bureau, and the Bureau allocates downward the amounts that have been allocated to the Bureau by the Department. The regional director then allocates on downward to the operating level. The guy on the operating level is on the firing line because he is the one who has to serve people, knows what the park area needs. He is the one who prepared the estimates. This is his planning figure for putting in for money, and he must justify it.

From the operating level, the man in charge is asked to submit his current fiscal year budget to compare it with the new fiscal year estimate. The current budget shows what was approved by Congress last year, and squeezes out the differences which are easy to examine. Why do you need more money? Or more people than you did last year? The differences points up the area of what program increase is being requested. So the field manager comes in on prescribed forms with this comparison. It details the old objective classification of expenditures and obligations in the old standard government accounting systems. Personal services, supplies, materials, equipment, contractual services and travel are classified and these are according to the Bureau of the Budget's requirements. Thus developed and justified, the agency's budget package goes up to the Bureau of the Budget in September and is screened, reviewed and analyzed by budget examiners. Then they hold hearings with the Bureau and the Department, if necessary, where the submissions are defended. After they sold the Bureau of the Budget examiners, then it must go to the Bureau of the Budget Board of Review which holds hearings with the Budget examiners. The Board of Review may eliminate the figures arrived at by the budget examiners.

The Board of Review finally determines the amount to be included for the Departments and the Bureaus in the President's budget.

In November, the Bureau officials meet with the Bureau of the Budget and are informed formally of the Bureau of the Budget's decisions as they came out of the Board of Review. Data as to how much planning allowance for each appropriation activity and activity level, or are passed out to the Department and in turn to the Bureaus...these represent the administration's wishes. Everything is passed for conformance with the President's administrative goals.

The Washington office makes the budget allowance distributions back to the field after the Bureau of the Budget review hearings. The Regional Directors pass the allowances down to the lower levels of office and field operations.

Now we go into three legislative considerations. In the first 15 days in each new session of Congress, the President presents his annual budget message. It contains all the requests made by the managers at the operating level.

After our Bureau justifications are completed and the Bureau of the Budget has allocated to us our amounts for inclusion in the President's budget as previously described we get busy at the Department and bureau levels justifying the budgets. The justifications are distributed by the Department, after the President's message, to the Congressional Committees... the House Appropriations Committee, and the Senate Appropriations Committee and their sub-committees. The President's printed budget is submitted during the 15 day period. The sub-committees handle the agency's affairs in accordance with the Congressional organization.

The sub-committee holds the hearings with the agency usually in April or May before the fiscal year begins in July. The agency head again has to defend his stand on requests made by the operational levels, as finally adjusted as previously described. The budget is built around the operational level needs. I urge you to read the hearings records for your agency. They are quite revealing. After the hearings, the sub-committee reports its recommendations to the full Appropriation Committee.

The sub-committee may also make adjustments in the programs. The full committee votes on adoption of the sub-committee report and explain fully the full committee's actions. The full committee prints its appropriations bills for the agencies. Ours is usually the "Interior Department and Related Agencies". Then if the full House floor, upon receipt and calendaring this Bill, adopts it, it is passed over to the Senate Appropriations Committee structure.

Before the Senate sub-committee acts, the agency is given a chance to appeal adjustments that may have been made by the House. The Senate sub-committee might restore any program cut out by the House or increase or decrease any others. Then the Senate amends the Bill as passed by the House, they pass it, and if it is different from what the House passed, it goes into a joint Senate-House Conference Committee.

The conferences get together and reconcile their differences. Some high level political considerations come out at this time. The conference comes to an agreement for both House and Senate as far as the conference committee is concerned.

If the Senate adopts the conference report, as being an agreement between the two legislative bodies on the appropriation Bill, then that is all that is required. It need not go back to the House. The Bill is then ready for the President's signature. After the President signs the Bill, the allocation of the funds goes back to the operating levels for use.

The management levels establish priorities of how the money is going to be used. They usually have an "A" level and a "B" level. The B level is usually the long distant planning, and if funds are available, Congress wants to know what will be done with them. This is a fine feature of the long range planning. So much for the generalities of the budgetary function.

Another function of administration is accounting to contain expenditures of funds within authorized limits and to serve management's needs in guiding programs towards their objectives: obtaining, training and developing the manpower needed to accomplish the management programs; obtaining the necessary supplies and materials, equipment and contracting for services; managing your property acquired in the process of doing your job; and providing staff guidance and advice. These are the functions of administration.

Administration is an atmosphere within which all operations are conducted. The problems of Administration literally permeate each of the management and professional programs. Management concerns may center around research, design, construction, law enforcement, protection, interpretation...these are all professional programs. An atmosphere of administration requirements surrounds these functions. The atmosphere has outer limits, and we are going to discuss what these limits are.

These boundaries on administrative authorities are superimposed by statutes...federal requirements and by regulations having the force of laws. We have several key laws in government that are universally applicable to all federal government activities in any agency...these laws are the "atmosphere" of any program anywhere. Some of these are the "thou shalt not" statutes...the old prohibitory statutes. Most of these statutes are still on the books. Examples of these statutes include: thou shalt not advance federal monies except with provisional law. This one was so rigid, we had to have special legislation to authorize the payment of a magazine subscription. This law has been amended several times. Another amendment allowed money to be advanced for travelling expenses. The fundamental restriction is still in the law. Thou shalt not move a private automobile at federal expense...there has never been any relenting on this one, and yet we moved a professional man and received a freight bill for moving his automobile. He decided to fly and come the easy way, but it was about a $145 lesson to him. Administrators must see to it these things are contained within the bounds intended by Congress. Those are examples of statutory restrictions that confine your activities and make you seek out legitimate means to achieve your management purposes.

One statute says we must advertise and get competition for procurements in excess of $2,500. There are certain exceptions allowed.

Let's take a book as an example of a regulation issued pursuant to authority of statute. The Classification Act of 1949 restructured all the bases for classifying Federal employees, and the ways of measuring pay. The GS classifications as we now know them were set up, pays were prescribed, new annual and sick leave requirements were prescribed. From the law itself, you couldn't get any cohesive operating guidelines. But it did give the Civil Service Commission authority to implement its terms. Pursuant to that lawful authority, the Civil Service issued a federal personnel manual which is universally applicable throughout government at the federal level. Having been issued pursuant to law these regulations then have the force and effect of law and must be followed in your decisions.

The Federal Administrative Services and Property Act of 1949 transferred to the administrator of General Services Administration, all landlording, property management, procurement and contracting functions of the Federal government, subject to such regulations as he may prescribe under that law. So we have federal procurement regulations, property management regulations...and more. These are so indexed, that if you have a genuine problem pertaining to any of these general areas, the answer is there... the "do's and can't do's". In these areas will lie the vast majority of your problems in this particular administrative concern.

Before we get into the specifics of the other functions: personnel, property management, procurement and accounting; I would like to comment briefly on the types of reviews into your administrative activities. These reviews are usually in the form of audits of varying depth and coverage. How many of you have directly undergone a general accounting office audit? I brought this up because the old cliche about death and taxes should be expanded to include audits. The internal type audit refers to the audit done by your own agency from within. To take a look at how you may be adhering to secretarial policy, complying with these laws and restraints that apply to everyone. This is the financial or compliance type of audit. They may come in and strike a balance sheet from your books, test check a few entries, make a few suggestions on the realignment on internal controls, for better control over your assets. Then you may catch a full functional type of audit in which the financial aspects are pretty muchly skimmed over. The debits and credits are not too important. More important may be how wisely you are using the limited resources that have been made available to you.

These are the types of internal audits. Sometimes you may get an audit that's an admixture of both types of approach.

Your external audits, almost without exception, are conducted by the General Accounting Office, which is reportable only to the Congress. External Reviews by the GAO are generally scheduled on routine service agencies such as ours, on a cyclical basis, say every three years, to see if we have adequate financial contròl over our assets and whether our practices are sound. They also oftentimes are prompted by the mail that the people in Congress get. I'm sure many of you have been looked into recently on your fee policies and practices under the land and water conservation fund act. It seems that Congressional mail has been heavy on such things as people being charged campground fees in one place and not in others. These inconsistencies in application have come to light and so they began to make a study of all the agencies involved in the collection of fees under the land and water conservation fund act. None of us have seen the reports, and unless we have gone astray under our own bureau policies and procedures we are not likely to hear anything at all. This is the type of review that can help us avoid criticisms by establishing uniformity in dealing with the public. This is another type of external audit that you may experience. Some of these audits may be triggered by two or three irate letters coming from essentially the same source and the same cause. The Congressional mail is a very powerful thing. Besides audit scrutiny, other internal checks and balances should be built into your operation to keep you contained within this atmosphere of administrative integrity. Your organizations should have your interrelated functions and responsibilities separated so that no one man has too much authority over any one group of interrelated functions. Oftentimes this isn't possible in a small organization. The smaller your organization, the less likely are you able to separate these vital functions. An example of the importance of this when you are establishing your organization and delegating your authorities and responsibilities in connection with a recreation activity that you should bear in mind: many years ago I was auditing a very outlying project, which had only one person to do all the administrative functions. This man was initiating the purchase requisitions, approving them himself, issuing the purchase orders in connection therewith, signing the receipt for the materials, and approving the invoice for payment. He had everything under control, plus a couple of houses in town that he built. In another instance I was auditing a state installation which was drawing a federal grant money for operational purposes based upon cost per patient day. In the grant agreement it very specifically stated that the cost per patient day could not include any capital improvements or capitalizeable items of expenditure whatsoever; this was raw operating cost. This grant agreement with the state had been going on for some twenty years and after I had worked in this office for a few months, this agreement came to my attention. I found out that it had never been audited. The manager of this office was not very sympathetic to audits, but I prevailed on him to give me just a fast look-in on it the next time we made an inspection down there for other types of standards, such as health, food and care. I found that the maintenance superintendent of the institution had complete personal authority over all the business functions. I scanned the invoices and charges to the patient day costs accounts, and I took a select list of expenditures, then toured the grounds, and found many of these materials actually in capital additions to the plant. This two hours of work resulted in substantial recovery over about five years previous operations. The state subsequently did an audit after my examination, and turned us back some $23,000. In the process of their audit they found that this man had too much authority, and that much of the material that had been bought, delivered and received at the site on paper had apparently never reached there. He had grounded himself with a sizable real estate investment in a near by town too. So these are the dangers-- you must split these responsibilities. The GAO is very critical of your internal arrangements of checks and counter balances. They don't like to see too much authority placed in one individual. Even personnel appointments, timekeeping and passing the paychecks out should be separated. With all the accounting controls we have in government, all the checks and cross checks, things can still go awry. Despite all of your arrangements, to separate these functions for maximum security, there is the danger of collusion which no system in the world can prevent. Systems can be devised so as many as five or six people would have to be collusion. They could beat the systems in some instances. You must watch your assets from this standpoint because audits will look at controls or lack of them. It is embarrassing to be caught in a situation where peculation is going on in your organization.

In your delegations of authority to individuals...you should have certain check points within your functions procedures where you can intercept work from the normal flow and see what's going on. This is particularly important in a large operation. There is a need for management alertness at all times because this is the area where you can really become embarrassed. Don't neglect it.

Another check and a forceful restraint on all administration decisions within this frame work and atmosphere of requirements, is your authorized certifying officer. He puts his name on the line on the voucher schedules, and pays for the decisions you made. Under the authorized certifying officer Act of 1941, he was given a personal and bonded responsibility to see that your decisions and expenditures stay within this framework. Technically under the law he has direct contact with the comptroller general of the United States if any voucher should come to him for signature which he may consider questionable. He can pass it up to the Comptroller General and say here are the circumstances, may I pay this thing? He does not have to refer to his boss, the regional director, or the Secretary of Interior... he may go directly to the Comptroller General.

Generally, certifying officers, after a point of time, are prone to forget this independence they enjoy...and they make themselves a part of a team and they have even become actually fathers to minor conspiracies. A strong certifying officer is essential to any operation. He is a good point of contact for advice such as...how can I do this proposed action and keep it legal...? So he also serves as a staff man. An example of this: Recently, after a reorganization and assignment of contract administration facilities to San Francisco, where they were transferred from the regional office, there was left in the regional office this certifying function for the decisions made in San Francisco. A particular point made here was that somebody had overlooked a law all the way from the design office on down. This was the Airport Act of 1950 or 1951, which specified that no federal funds shall be expended on an airport facility adjacent to a National Park area, except where such airport is used for strictly administrative purposes. We have a public airstrip out at Temple Bar on Lake Meade. It was sadly in need of some upgrading, and the San Francisco office proceeded to process a contract for the work. This act of 1950 has this further stipulation that: no federal funds shall be expended in connection with an airport adjacent to a national park service facility unless that airport be included by the FAA in the national airport plan. The rehabilitation contract was let, and here came the first payment estimate in to our authorized certifying officer to be paid. He did a little research and he found this requirement, that this airstrip be included in the federal airport plan. So we proceeded to challenge the payment; I informed the Washington office immediately that payment was going to be withheld until that strip was included in the federal airport plan. How much delay was there? About four weeks, which was real fast action, because we had to work through the FAA area office in Tucson, through the regional office in Los Angeles and through the office in Washington. Once the FAA understood the situation, and being a sister agency of the federal government, I think they sympathized with our plight. Our airport was included in the National Plan and our contract was legal at least before a payment had been made.

Another interesting thing to scan through sometime is "Decisions of the Comptroller General". The Comptroller General is the supreme authority on all matters pertaining to claims against the government or by the government. Not even the Court of Claims can overrule him. They may take contrary action and make an award in a case that the Comptroller General has turned down, but they follow that method rather than going through him and saying "you have to change your decision", because he usually does not. So there are many instances in the federal government where the Comptroller General has said no and the Court of Claims has made an award. He is a very independent individual. All this multitude of statutes and laws that come out each year, set up new requirements for expert advice and the Comptroller General has to set the administrative action pattern. This he does effectively by publishing the decisions he has made on questions presented. The recent changes in the moving expenses liberalized the benefits very substantially. The Bureau of the Budget regulations that put that law into effect were somewhat less than a masterpiece of precision. A lot of questions were left, and this problem is being dealt with almost weekly, by the Comptroller General. Questions come up from certifying officers, from agency heads, "what does this mean, how do we pay here, etc." These decisions from the Comptroller General are really day to day words right from the horses mouth as to what is proper and what is not proper.

I hope you are beginning to develop an insight into administration that it is not all a bunch of pencil pushing clerks. That it has its place within the organization.

Let's drop briefly to accounting. Each agency under the law must have an accounting system approved by the General Accounting Office and the Bureau of the Budget. The principle law that restrains in the field of accounting is the Anti-deficiency Act of the 1880's, and brought up to date and amended extensively and sharply in 1954. The Anti-deficiency Act, in brief, prohibits the expenditure of federal funds in excess, or obligation of federal funds in excess of the amounts authorized by Congress. It further defines a concept of internal structure which provides that the prohibitions can be forced down even to the sub-allotment level, so that maybe you as a field manager, if you receive an allotment advice are subject to the law. This is why most of you keep some sort of hip-pocket records in addition to the service you get from your central accounting setup, on where you stand with your money program. This is a critical Act. It provides two levels of punishment for violation of this law. One is if you over expend through neglect, you may be suspended from duty, and fined according to the severity of the neglect. The other degree of violation is the criminal degree. If you deliberately over expend the money, then you are subject to a fine of $10,000 plus imprisonment. Congress really meant business on the Anti-deficiency Act. In true emergency situations, none of these restraints apply. They all have this exception in the law, and a definition of an emergency is in there.

An emergency is not something that comes up through your lack of planning. These quasi emergencies are often thrown at us to justify irregular action. If an emergency does not meet the criteria, protection of life or public property, then you don't have an emergency. If you don't have a dime in the coffer, you can still save lives and fight fire.

We keep records of costs on fires and the Congress restores those funds before the end of the year. But for funds to actually make a payment from, we are authorized to use any fund we have in an emergency.

One of the functions of accounting is to help you stay within the monies allotted. It is done through the allotment ledger system, where we keep our available funds on an obligation basis. An obligation is "a valid contract, or instrument, or agreement which obligates the money to be paid by the government upon receiving certain goods and services." This is the obligation basis and this is the machinery we have for protecting ourselves against the violations of the Anti-deficiency Act.

The other accounting records should be in support of the other management programs. Your cost accounts, expenditure classification accounts...you should be getting feed back from your central accounting office on how your programs are progressing financially, i.e., how much you have expended and how much you have remaining for the balance of the year, and whether your expenditures have been the level and scale that you planned. You may have to do some internal reprogramming and replanning. These are the accounting services to management. Coming ADP applications will enable us to serve you with good cost accounting measurement of your management effectiveness. The accountants also produce the recurring financial statements required by the Department and the Bureau of the Budget every month and reconcile the accounts with Treasury. A statement is made on the account of funds, the amounts of obligations incurred, the amount of expenditures made and the remaining balances available for the year...

Personnel administration is so important, that in many departments and agencies, it has an assistant director status of its own. These are true in many corporations also. There is a vice president for personnel. Some federal agencies have assistant administrators for personnel or assistant directors for personnel. Our personnel responsibility in the National Park Service is imbedded in the overall administrative functions as an administrative concern.

The personnel dollar, of course, is the biggest expenditure from your funds for your operating programs. As high as 90% of your dollar may go for personal services in some programs. The money you spend for personal services is the big money. Therefore, I urge you to take every training course you can get within the legal limitations, to become learned in the field of position management. You can blow more money on poor position management than you can on poor procurement. You have certain tools to use in position management, you have civil service classification series and qualifications standards, you have position descriptions and job requirements.

Some of the things we run into at the regional level, operating a broad personnel program for a region, would astound you in the way of position management. Not only from a standpoint of waste, but misuse of employees. We even had a caretaker doing supply clerk work. The manager was getting supply clerk work out of an employee for lower wages. You must be aware of this sort of thing as recreation managers because this is where your big dollar goes, this is your big vulnerability to embarrassing criticism from your work force. If this man had been knowledgeable enough to write to his Senator and say, "I've been doing supply clerk work at this particular area for years, and I'm still a caretaker. What's the matter?", the lid would have come off. However, it is almost an impossibility for higher echelons to conduct continuous reviews and audits for these things.

We sometimes find that people are promoted on the basis of a restated job description. A desk audit look however, shows that his duties are so widely varied from the job description that was written, to get this promotion; it is obviously foggy. The intent was good probably at the time the job description was written. They find out that the man couldn't absorb these additional responsibilities, so they cripple along with this situation. This costs you money and is contrary to personnel management laws.

There is the alternative of reassigning this person for several weeks to check him out at the new duty first before promoting him. By using this technique, you get more for your personnel dollar, especially if you are operating a peak load-valley load operation.

Let's go briefly into procurement and contracting. The Federal Property and Administrative Services Act of 1949, passed onto the Administrator of General Services all responsibilities for procurement and property management. Those responsibilities are delegated downward in authority by the Administrator of General Services, through publications in the Federal Register. Any employee who walks into a store and buys across the counter, is not acting in behalf of his agency, he is acting in behalf of the administrator of General Services. That is the line of responsibility. His guidelines are in the Federal Procurement Regulations which is a complete guide to multi-million dollar contracting and five dollar purchasing. These are the regulations that confine you in matters of buying. They have good purposes.

We have a lot of trouble with GSA materials because they are said to be inferior. Our big problem is we will not use their paint on our Buildings. We must buy their paint. These are mandatory requirements and we have no alternative but use their paint. But we do find that GSA people are reasonable to deal with. If we have a valid reason why their products will not do our job, they may give us a waiver to purchase elsewhere. But take that route, don't just go buy it elsewhere anyway, because you will only get into trouble for this type of approach.

I want to emphasize the need for careful planning. This facilitates your buying more than any other thing you can do. If you know that three months from now, you are going to start a paint job on some buildings, let your procurement man know about it so he can have the paint and brushes right there ready to go to work. Often times we find the crew reports for the work and does not find the paint and brushes. Somebody didn't turn the requisition in for it. So you have a crash program...an emergency... and you go to town and buy paint off schedule. This is not an emergency... this is poor planning.

In the field of property management and in the facility where you are involved in recreation, operation of essential equipment can be one of your most costly outlays if you don't watch it. In a park about four years ago, I found that it had been heavily equipped with heavy equipment such as dump trucks, instead of pickups. When they were equipping that area, they were looking at a big one-time job of road work and decided they would need lots of dump trucks on that. So they bought lots of dump trucks. When I was there years later for a review inspection, I found these dump trucks were being used to haul men 50 miles across the park to a job site. The job didn't require a dump truck, it was all they had to haul the men over there. The cost was 33¢ per mile for transporting them over there. I inquired why this situation existed. They told me that the regional office would not let them turn the trucks in or trade them because they hadn't been used enough. When I returned to the regional office I adjusted their equipment and their operating costs went way down. When you buy equipment that is too heavy for your needs, that costs you.

You must see to it your administrative people maintain such cost and use records on equipment so you can determine you are getting economical utilization from that equipment. Equipment that lays idle is a big problem in government, not only in recreation. Recently through GSA, at regional conferences of all agencies...we have developed an interagency pooling of all equipment by location throughout the whole Southwest area. Agencies which have equipment subject to little use make it available to other agencies on a loan basis. This cross utilization is a coming thing in government and it will save countless thousands of dollars government wide. You are paying amortization costs, depreciation costs for idle equipment. Heavy equipment is usually bought with maintenance in mind. Be sure its justified.

If you try hard enough for example you will probably find that county equipment is available to do your secondary road maintenance work on a reimbursable basis. You can get a one shot job on an agreed amount and bids are usually low. This obviates the need for you to acquire an expensive piece of equipment and then not fully utilize it. Use good common sense in equipment utilization and equipment buying. If you think it out carefully before signing that requisition to purchase, and explore all the alternatives, you will avoid a lot of unnecessary costs.

Now to the care of sensitive items...certain items have a tendency to walk off...they have a personal appeal...a glitter that people naturally like. The Department of Interior has recognized this and it has established a class, or subclass of property that is called minor controlled items. They haven't enough value to capitalize and control financially in your records. But they are of such character, that repetitive buying to fulfill the needs of individuals can become real costly. These items include hand tools, binoculars, cameras, compasses and things with glitter. The regulations require that we establish some responsibility accounting for this...and get the guy on the line for that pair of binoculars. If you don't get him on the line and they don't show up in your next inventory... what happened to them? Our regulations provide for care of these sensitive items and they are defined. You can whittle your money out on items like these until it makes "a sizable beach when you put all the grains of sand together".

I want to thank you. You have been a wonderful group.

COOPERATIVE INTER-AGENCY RELATIONSHIPS

by

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After receiving the assignment of discussing cooperative relationships with you, I began to wonder how the topic might be approached to make sense and be of some value. One conclusion I reached quite quickly was that the discussion would have to be pretty much on a generalized basis in view of the number of agencies represented and the fact that we are considering the entire range of park and recreation activities.

Actually, this generalized approach has worked out pretty well, I think, since the more specific subjects of planning, development, and management have been dealth with quite thoroughly by previous speakers and in each case the need for cooperative relationships and coordinating activities has been emphasized.

Perhaps a good way to begin is to try and identify why cooperative relationships are necessary.

In recalling some of my personal experiences, I know for sure that all cooperative relationships are not necessarily voluntary. Many are required by laws that became necessary because of the lack of cooperation in the first place, and many are dictated by policies and interagency agreements that are not always palatable to all personnel who must carry them out. I must admit that there are some rather basic reasons, too, for negative thoughts about some cooperative endeavors, for despite the rewarding results that can be anticipated, extra effort, extra scheduling, lack of control, additional time, and compromise are required.

As I see it, the main reason for good cooperative relationships is to achieve a higher degree of excellence or, in more simple terms, to do a better job. Perhaps, the most recent and notable example of this proposition is the completion here at the Institute of four outstanding master plans for the Avalanche Peaks area.

Closely allied to the objective of doing a better job through good cooperative relationships is the matter of avoiding duplication of effort. Unquestionably, there is a need for some public agencies to have comparable staffing in certain disciplines, particularly where the programs are large and on a continuing basis. Where the programs are limited, however, it might be more effective to obtain the assistance of another agency. In cases where there is a nationwide shortage of personnel in certain disciplines, duplicate staffing would tend to dilute the quality because of the scattering of talent among several agencies.

Another reason would be a matter of economy since there are many instances where one facility will serve the interest of two or more agencies with a national saving in cost.

A second question that might be asked is "How can we achieve good cooperative relationships?"

Well, perhaps most important of all is a desire, or at least a willingness, to establish the most effective way of accomplishing a program, making it a point in each case of giving consideration to the possible interest of other agencies. If other agencies should be involved then it only remains to meet or correspond with those agencies that have an interest or capability in helping you to do your job more effectively and to arrange for their participation.

Once agreement is reached on a cooperative effort it is important to document the agreement and to schedule what is to be performed by each agency. I can't overemphasize the necessity for scheduling cooperative efforts, particularly the furnishing of assistance, since time and time again requests for assistance have had to be turned down because the assistance was needed within a matter of days or months. With more foresight, the assistance or other cooperative efforts can be scheduled and accomplished as needed. This, however, doesn't eliminate the need for follow-up meetings and correspondence. If the responsible agency wants to insure that everything is being done on schedule then follow-up is absolutely essential.

Well, these principles are relatively simple yet failure to heed them can result in some severely strained relationships as well as late submissions.

So much for the generalities. Perhaps the best way to explore this business of cooperative relationships further is to discuss some examples of cooperation. I don't know how best to categorize the many situations involving cooperative efforts but this is probably not too important anyway. For discussion purposes however, let's consider examples of cooperative efforts in the park and recreation field under the phases of planning, development, and management. I've listed three under each phase and there are many more that you are familiar with.

Planning (Pre-authorization, general development and master planning, etc.)

Rocky Mountain Regional Planning Pilot Study-
Chaired by BOR - will be conducted in cooperation with other Federal, State, County and local agencies.

Yellowstone-Grand Teton Master Planning Studies-
NPS teams which include representatives of conservation agencies. Other Federal and State agencies were consulted and invited to participate. Since completion of the studies public meetings were held in Wyoming, Montana, and Idaho.

Technical Assistance-
NPS agreements with Bureau of Sport Fisheries and Wildlife, Bureau of Indian Affairs and Bureau of Reclamation.

Development (Developed area drawings, specifications, construction, etc.)

Joint development of Visitor Center at Glen Canyon Dam-
NPS and BR sharing cost, and the interests of both agencies will be represented in the Center.

Coordinated development at Reclamation Reservoirs-
SCS, BSFW, NPS, State game and fish, and administering agencies cooperate in the development of a reservoir management plan with the Bureau of Reclamation coordinating the effort.

Cooperative efforts that fizzled-
Construction camp of Bureau of Reclamation laid out for future concession use but ended up with buildings being sold off-site.

Management

Joint Management-Sam Rayburn Reservoir-
Corps of Engineers and Forest Service arrangement-all familiar with this.

Establishment of big game hunting seasons and regulations-
Since 1944 Colorado Game and Fish has followed practice of meeting with all Federal and State land management agencies to obtain their views and recommendations prior to establishing big game hunting seasons and regulations.

Multi-agency meetings-
National Park Service invited TVA representatives to accompany other Federal and State agencies on annual inspection of Bureau of Reclamation reservoirs in Kansas.

Finally, and as a sort of summary, I should mention the President's Council on Recreation and Natural Beauty which is an effort in cooperative relationships at the very top level of government. Incidently, the Council has recognized the desirability of effective interagency planning and has underway a study to develop policy guidelines to aid Federal agencies in such endeavors. I hope what I've said here today doesn't conflict with the policy guidelines that are issued.

OPPORTUNITIES FOR PROFESSIONAL GROWTH

by

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Recommendations regarding professional growth are difficult to make since so many variables are involved. What do we really mean? Greater ability in the discharge of daily responsibility? Or improvement in the philosophical and ethical aspects of the job?

Let us accept that professional growth refers to an increasing knowledge of the job to be done. In this respect this growth is a pre-requisite for successful discharge of duties. In addition, continued advancement is also dependent on this growth.

If professional growth cannot be quantified, can it at least be recognized? I was interested in the remarks of a syndicated columnist recently who, in talking about status, suggested a number of ways a person can determine whether his status is increasing or decreasing. Examples given were: no decision is made until your opinion is asked; co-workers hold the elevator for you; colleagues ask to carry your briefcase and open car doors for you.

A more subtle indication of professional growth is the personal feeling of increased confidence in coping with complex problems. If, as individuals, you return to your regular responsibilities with this feeling of increased ability in the handling of recreation issues and problems, and increased awareness and sensitivity to the analytical inputs on which judgments must be made--yes, even the recognition that a certain situation does in fact constitute a problem that requires your attention--then this Institute will have contributed in some measure to this hard to define and intangible professional growth.

Newsweek magazine in April 1966 (page 84) carried an article "How to Succeed in Business". It would be delightful if success could be reduced to a cookbook formula, but unfortunately this is not the case. There is no simple formula. Many subtle facets are involved.

With today's changes, one certain characteristic is adaptability. Increasingly we see that individuals who are basically inflexible, who can't change or respond or adapt must be set aside or discarded. This relates to the biological analogy I have used on occasion which is that any organism threatened by change has only three choices available to it. These are: mutate, migrate, or die.

Last Tuesday evening Mr. Garrison told our Recreation and Parks students at their monthly club meeting how national park rangers years ago lit bonfires to contain wild elk in the national parks so that they would not stray outside the area and be shot by hunters. This was at that time the level of understanding of preservation and proper management of this species. Countless illustrations could be cited where traditional procedures and former rules will no longer suffice. Standard biases and old viewpoints must be modified in the life of current needs. This really is the reason for the necessity of continuing professional growth.

There are many ways that a person may seek after professional improvement. One of these methods certainly is the institute, short course, or workshop. This method is increasingly popular and becoming available to more and more professionals.

Last year thirty million Americans were involved in some kind of self or professional improvement course. At the University of California alone there were in 1966 a total of 218,000 people enrolled in approximately 7,000 extension courses. And last year Harvard University offered the 49th session of its 13 week advanced management program. Institute and short-courses offer excellent opportunities for keeping up to date with current information and a cross-fertilization of ideas from other professionals in related positions. But these accelerated courses are not the only method for improving professional competence.

One method that is often overlooked is the need to consciously structure--and protect--sufficient time to set individual goals and consider longer range objectives in accomplishing the primary responsibilities associated with your job.

Another method is to increase the awareness of the relation of your job to other jobs. Conferences and professional meetings provide the opportunity to check periodically on advances in the field and new information which has recently become available.

Another important area that is often overlooked is the matter of reading. It is my feeling that a person cannot truly increase his professional competence unless he is an almost omnivorous reader in many unrelated fields.

What if we were to pose a little impromptu test, as follows:

Do you presently subscribe to a job-related journal or periodical? (20 points each)
How many additional journals in your field? (10 points each)
To how many non job-related periodicals do you subscribe? (10 points each)
How many unrelated books do you read per month? (10 points each)

If 100 points is taken as an arbitrary maximum, we might easily place a reading professional at 75 or 80 percent and above. Certainly time is a limiting factor, but as a person grows beyond the technician level to administrative responsibilities it is apparent that the network of impinging factors becomes ever more highly interrelated. Increasingly, information, principles, methods, and knowledge from seemingly unrelated fields proves to have direct application in the solution of specific job problems. We all go to too many meetings where park superintendents applaud each other's group-approved position, foresters agree heartily with foresters, and architects nod sagely at acceptably stylized designs. But I believe these and other disciplines are better served by the professionals who dare to be different, if only in their willingness to meet and discuss and interact with professionals in other disciplines where common concerns are involved.

Some time ago I was asked what attributes a resource administrator must have to do an outstanding job in working with both people and recreation resources. This is a tall order, but I believe that among the total should be the following points:

1. An undergirding knowledge of natural phenomena, best obtained in our biological disciplines. This is basic for intelligently dealing with land and water resources. It presupposes an understanding of both resource capabilities and limitations, and familiarity with complex resource interrelationships.
2. A mind equipped for logical analysis--as expressed in a working knowledge of statistics, economics and finance--in order to dissect and examine relevant benefits, opportunity costs, and consumer surpluses.
3. An understanding of law and the political process as a framework for implementing social goals and objectives, and for the equitable adjudication of resource conflicts.
4. A shrewd and frugal nature that constantly searches for least-cost combinations and more efficient resource utilization.
5. A compassionate understanding of humans--their collective behavior, desires, tastes, and their social idiosyncrasies with relation to their environment, sociology, psychology...

I doubt that anyone ever gets completely educated in these areas. In a real sense, more always needs to be known. And so the ultimate challenge must be the ability to retain a solid working philosophy on the one hand, but concurrently to probe and to gather new information in order to build workable concepts into this working philosophy. No single institute--no single kind of activity--can do the whole job. But the effort expended here shows you are "seekers", and are hard on the trail of professional improvement.